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#### CAUSE NO. C-5149-14-H

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# PLAINTIFF PHARR SAN JUAN ALAMO INDEPENDENT SCHOOL DISTRICT'S FIRST AMENDED DESIGNATION OF EXPERTS

COMES NOW, PHARR SAN JUAN ALAMO INDEPENDENT SCHOOL DISTRICT, Plaintiff in the above numbered and styled cause, and tenders its First Amended Designation of Experts in compliance with the July 17, 2015 Agreed Level 3 Docket Control Order deadline for Plaintiff's expert designation and production of expert reports.

# (1) The expert's name, address, and telephone number Answer:

Bradford Russell, AIA, P.E. BR Architects 2007 N. Collins Boulevard, Suite 507 Richardson, Texas 75080 (972) 235-9308

Thomas June Melton, III, P.E. Amstar Engineering, Inc. 707 River Road Austin, Texas 78734 (512) 263-3661

Irene B. Thompson Aguirre & Patterson 3315 N. McColl Road McAllen, Texas 78501 (956) 686-4532

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Agustin J. Rodriguez Project Manager, District Architect Pharr San Juan Alamo Independent School District 601 E. Kelly, Pharr, Texas 78577 (956) 354-2000

Jesus Ramirez Ebony Park, Suite B 700 N. Veterans Blvd. San Juan, Texas 78589 (956) 502-5424 (956) 502-5007 (fax)

The following are not retained experts, but Plaintiff reserves the right to call to testify and to elicit, by way of cross-examination, opinion testimony, and adverse testimony from the following potential experts or persons with knowledge of the lawsuit:

Eli R. Ochoa, P.E., AIA
Octavio Cantu
David Delnay
Susan Daniels
Jesus Delgado
ERO International, L.L.P.
d/b/a ERO Architects

Texas Descon, L.P. and Descon 4S, L.L.C. Employees, agents, and representatives Claudio S. Velasco, Senior Project Manager Michael D. Smith, President

Bruce L. Morris, P.E. Steven A. Frase, P.E. Rimkus Consulting Group 4801 NW Interstate 410 Loop Frontage Road San Antonio, Texas 78229 (210) 647-8400

William Stice, R.E.F.P.
David Tyner
Gerald F. A. Lowe, P.E.
Jeffrey A. Miller, P.E., C.B.C.P.
Terracon Consultants, Inc.
6911 Blanco Road
San Antonio, Texas 78216
(210) 641-2112

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Frank S. Lam, P.E. Zach Lindaur Frank Lam & Associates, Inc. 508 W. 16<sup>th</sup> Street Austin, Texas 78701 (512) 476-2717

Katrin Miovski, P.E. Raba Kistner Consultants, Inc. 800 East Hackberry McAllen, Texas 78501 (956) 682-5487

Andre G. Garner Garner Consulting Group 100 Commons Road, Ste. 7-302 Dripping Springs, Texas 78620 (512) 894-0754

Curtis Ardoin Delta Structural Technology 3601 North Loop 336 West Conroe, Texas 77304

Kristina D. Hernandez, P.E., C.F.M. Halff Associates, Inc. 5000 West Military, Ste. 100 McAllen, Texas 78503 (956) 664-1960

MEP Solutions Engineering Employees, agents and representatives 600 E. Beaumont Avenue McAllen, Texas 78501 (956) 664-2727

Ricardo Hinojosa, P.E. Hinojosa Engineering, Inc. 108 Cleo Dawson Mission, Texas 78572 (956) 581-0143

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Jorge D. Perez, P.E. Perez Consulting Engineers 808 Dallas Avenue McAllen, Texas 78501 (956) 631-4482

Gary L. Olivares Accessibility Code Consulting, L.L.C. 1314 Possum Trot Austin, Texas 78703 (512) 476-8675

Armko Industries, Inc. Employees, agents and representatives 1320 Spinks Road Flower Mound, Texas 75028 (972) 874-1388

Jack Holland Terminix Pest Control 1903 Joe Stephens Blvd. Weslaco, Texas 78596 (956) 650-0602

Steve Lemmons
Universal Claims Services, Inc.
2004 North Jackson Road
Pharr, Texas 78577
(956) 994-1277

McAllen Carpet & Interiors, L.P. Employees, agents and representatives 1200 E. Jasmine Avenue McAllen, Texas 78501 (956) 686-8682

# (2) The subject matter on which the expert will testify Answer:

Mr. Russell will testify as to the engineering work performed by the Architect in the design and planning of improvements for the re-adaptive/rehabilitative construction Project which is the basis of this lawsuit, including standards of the profession, omissions and errors committed by the Architect, and proximately

resulting damages. Mr. Russell will additionally testify regarding the demolition work performed by the Descon defendants in Phase I of the Project, and generally regarding safe demolition practices.

Mr. Melton will testify as to the engineering work performed by Mr. Eli Ochoa, PE, AIA/ERO International, L.L.P. d/b/a ERO Architects ("Architect") in the design and planning of improvements for the re-adaptive/rehabilitative construction Project which is the basis of this lawsuit. Mr. Melton will testify as to structural engineering issues. Mr. Melton will testify as to the work performed by Mr. Frank S. Lam, P.E. and Frank Lam & Associates, Inc. in the preparation of a structural engineering evaluation for the Architect on the project. Mr. Melton will testify as to the work of Mr. Bruce L. Morris, P.E. and Rimkus Consulting Group, Inc. in evaluating damage at the Project site for Chubb Corporation.

Mr. Melton will additionally testify as to the proximate cause(s) of Plaintiff's damages in Phase I of the Project, as well as calculations of damages.

Ms. Thompson will offer her opinion as a professional appraiser as to the respective values of the Stambaugh building and the textbook storage building.

Mr. Rodriguez will testify regarding reasonable and necessary costs to repair damages sustained at Phase I and Phase II of the Project, based on historical construction costs for public school district construction in South Texas. He will testify as to the specifications of the Stambaugh and Textbook Storage buildings, including square footage, and as to what the original plans for these structures entailed in terms of planned improvements.

Mr. Ramirez will testify as to the reasonableness of Plaintiff's attorney's fees.

(3) The general substance of the expert's mental impressions and opinions and a brief summary of the basis of them, or if the expert is not retained by, employed by or otherwise subject to the control of the Plaintiff, documents reflecting such information

#### Answer:

#### Architect

Regarding the assessment phase of the Project, Mr. Russell will testify that Architect's work deviated from acceptable standards in the practice of architecture in the following respects:

- (i) Failing to undertake/require reasonable foundation testing (core testing) to determine existence/condition of moisture barrier between foundation and soil;
- (ii) Failing to address lack of moisture barrier in designs;

(iii) Failing to undertake/require reasonable structural testing of structural elements.

Regarding Phase I of the Project, the Architect failed to meet Architect's design responsibilities and specification requirements in a Project calling for partial demolition of structural elements of an existing building in the following respects:

- (i) Failing to consider the impact and risk of structural damage of demolition work in its designs and specifications for the construction project;
- (ii) Failing to request and follow through with the general contractor/demolition contractor to develop a specific plan containing means and methods for the demolition (even though the contract between Owner and Contractor so provided)
- (iii) Upon failure of the general contractor to develop a specific plan containing means and methods, permitting the contractor to proceed with demolition.

Mr. Russell will testify that such errors and omissions constituted the proximate cause of Plaintiff's damages, including the collapse of a portion of the East Wall and second story floor in the Main Building and resulting damage to the West Wall and support columns, and other structural damage to the building.

Regarding Phase II of the Project, Mr. Russell will testify that Architect's work deviated from acceptable standards in the practice of architecture in the following respects:

(i) Failing to conduct reasonable investigation of the conditions of the two buildings (Stambaugh Building and Textbook Storage building) before inducing the district to approve the plans and specifications and award the construction contract;

(ii) Failing to determine existing conditions of the two buildings rather than relying upon unreasonable assumptions while preparing plans and specifications for rehabilitative/re-adaptive use.

(iii) As chief advisor to the District on design and construction issues, advising the District to proceed on a course of action without having made an adequate evaluation of existing conditions, knowing that the District would necessarily rely upon the Architect's representations.

Mr. Russell will testify that such errors and omissions constituted the proximate cause of Plaintiff's damages in Phase II of the Project. (See attached Expert Report of Mr. Bradford Russell, AIA, PE.)

## Descon Defendants

Mr. Russell will testify that the Descon Defendants were negligent in their failure to adequately inspect and test the structures and site beforehand and failure to use appropriate demolition means and methods in Phase I of the Project. Such

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negligence proximately resulted in the damages that Plaintiff has complained of in this lawsuit. (See attached Expert Report of Mr. Bradford Russell, AIA, PE.)

# Frank Lam & Associates, Inc.

Mr. Melton will testify that Frank Lam & Associates was negligent in failing to undertake a more thorough investigation and determination of the structural integrity of the existing facilities in preparation for modification and renovation. The report produced by Frank Lam & Associates was based on cursory observations and no exploratory testing was performed to determine the make-up of the exterior walls. Mr. Melton will further testify that Frank Lam & Associates was negligent in not preparing instructional demolition plans and not being on site every day that demolition was taking place to guard against careless actions of the demolition contractor and to ensure that proper and appropriate safeguards were used to prevent damage to portions of the building not scheduled for demolition. (See attached Expert Report of Thomas June Melton, III, P.E.)

# Rimkus Consulting Group, Inc.

Mr. Melton will testify that Rimkus Consulting Group, Inc.'s investigation of the District's damages was arbitrarily narrow in scope, and the resulting report excluded a vast portion of the damage sustained by the District attributable to the collapse of the east wall, including damage to the brick roof parapet, damage resulting from lateral forces traveling east to west through the building, and damage to support columns in the basement. (See attached Expert Report of Thomas June Melton, III, P.E.)

#### Damages

Mr. Melton and/or Mr. Russell will testify that the Plaintiff's proper measure of damages regarding Phase I of the Project is the cost of construction repairs resulting from the collapse and resulting damage to the property.

Mr. Melton and/or Mr. Russell will testify that the Plaintiff's proper measure of damages regarding Phase II of the Project would be calculated as follows:

- (1) the actual cost differential in the change orders to the contract to address the wrong assumptions and flawed understanding of actual conditions of the Architect, and
- (2) the pecuniary loss resulting from the loss of use of the comparable square footage of space of the Textbook and Stambaugh buildings which resulted from proceeding to make the improvements to those buildings when new construction of a comparable square footage would have been more efficient.

Ms. Thompson's appraisals of the Stambaugh building and Textbook Storage building will be employed to provide a basis for the calculations referred to above. (See "Appraisal Report of an Existing Educational Building (aka Textbook Building) 714 E. U.S. Business Highway 83, Pharr, Texas 78577" and "Appraisal Report of an Existing Educational Building (aka Stambaugh Building) 714 E. U.S. Business Highway 83, Pharr, Texas 78577.")

Mr. Rodriguez' calculations as to the reasonable and necessary costs to repair the damages sustained by Plaintiff in Phase I and II of the Project, as well as testimony as to specifications of the Stambaugh and Textbook storage buildings will provide a basis for the calculations referred to above.

# Attorney Fees

Mr. Jesus Ramirez has formed opinions regarding the reasonableness of the Plaintiff's attorney's fees billed on this case; the opinions are based on a review of the pleadings, evidence, discovery and depositions taken in the case, as well as the case law applicable to the case, and their experience as trial and appellate attorneys.

- (4) If the expert is retained by, employed by, or otherwise subject to the control of the responding party
  - A. All documents, tangible things, reports, models, or data compilations that have been provided to, reviewed by, or prepared by or for the expert in anticipation of the expert's testimony

#### Answer:

A Bates labeled expert file, comprising all documents reviewed by Plaintiff's experts, is attached. Additionally, expert reports from Mr. Russell, Mr. Melton, and Mr. Rodriguez are attached.

Mr. Ramirez has reviewed the pleadings and papers on file in this action.

B. The expert's resume and bibliography.

#### Answer:

Resumes/job descriptions are attached hereto for retained experts.

The Plaintiff reserves the right to call to testify and hereby designates any timely designated expert witness listed by any other party to this lawsuit. Plaintiff further reserves the right to elicit, by way of cross-examination, opinion testimony, and adverse testimony, from experts and non-expert witnesses designated and called by other parties to this suit. Plaintiff reserves the right to call undesignated rebuttal expert witnesses whose testimony cannot

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reasonably be foreseen until the presentation of the evidence in this trial. Plaintiff reserves the right to withdraw the designation of any expert and to aver positively that any such previously designated expert will not be called as a witness at trial, and to re-designate same as a consulting expert, who cannot be called by opposing counsel. Plaintiff hereby designates, as adverse parties, potentially adverse parties, and/or as witnesses associated with adverse parties, all parties to this suit, and all experts designated by any party to this suit, even if the designating party to this suit, even if the designating party is not a party to this suit at the time of trial. In the event a future or present party designates an expert but then is dismissed for any reason from the suit or fails to call any designated expert, Plaintiff reserves the right to designate and/or call any such party or any such previously designated experts by any party. Additionally, Plaintiff reserves any unmentioned rights with regard to experts, pursuant to the Texas Rules of Civil Procedure, the Texas Rules of Civil Evidence, the case law regarding same and the rulings of this Court. Plaintiff reserves the right elicit expert, lay or adverse opinions by way of examinations, crossexamination or other means, whether appropriate, from those witnesses designated by Defendant or any Intervenor who may have knowledge of relevant facts and/or have been designated as expert witnesses. Additionally, Plaintiff hereby reserves the right to call as trial witnesses those individuals designated as persons with knowledge by Defendant or Intervenor in this cause of action. Such information is on file with the court and has been served upon the other parties in this lawsuit. If a business entity is designated as a person with knowledge herein, you may assume that the appropriate custodian of records may testify as a person with knowledge.

Respectfully submitted,

THE J. RAMIREZ LAW FIRM

700 North Veterans Blvd., Suite B

San Juan, Texas 78589 Phone: (956) 502-5424 Fax: (956) 502-5007

Email: jramirez@rg-legal.com

By:

JESUS RAMIREZ

www

SBN 16501950

Email: ramirezbook@gmail.com

ROBERT SCHELL SBN 24007992

Email: rschell@rg-legal.com ATTORNEYS FOR PLAINTIFF PHARR SAN JUAN ALAMO ISD

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#### **CERTIFICATE OF SERVICE**

I, JESUS RAMIREZ, certify that on the 28th day of August, 2015, a true and correct copy of the foregoing, <u>PLAINTIFF PHARR SAN JUAN ALAMO INDEPENDENT SCHOOL DISTRICT'S FIRST AMENDED EXPERT DESIGNATION</u> was mailed on the following counsel of record:

Via Federal Express No. 7743 9027 3980

And Email: dbenjamin@benlawsa.com

David P. Benjamin

BENJAMIN, VANA, MARTINEZ & BIGGS, LLP

2161 NW Military Highway, Suite 111

San Antonio, Texas 78213

Via Federal Express No. 7743 9043 2920
And Email: mbc@aaplaw.com
Matthew B. Cano
Sara Whittington May
ALLENSWORTH AND PORTER, L.L.P.
100 Congress Avenue, Suite 700
Austin, Texas 78701

Via Federal Express No. 7743 9057 6392
And Email: sedwards@hudgins-law.com
Spencer Edwards
THE HUDGINS LAW FIRM
A PROFESSIONAL CORPORATION
24 Greenway Plaza, Suite 2000
Houston, Texas 77046

Via Federal Express No. 7743 9163 7486
And Email: dmedack@heardmedackpc.com
David W. Medack
James P. Davis
HEARD & MEDACK, L.P.
9494 Southwest Freeway, Suite 700
Houston, Texas 77075

for JESUS RAMIREZ



# Bradford Russell, AIA, P.E. Director of Architecture / Engineering BR Architects, Inc.

#### Education:

Southern Methodist University, Dallas, Texas Currently writing PhD

University of Texas at Arlington

Master of Engineering in Civil / Structural Engineering

Texas Tech University, Lubbock, Texas

Bachelor of Architecture, Tau Sigma Delta Honor Society, Bachelor of Science in Civil Engineering, Tau Beta Pi Honor Society, Chi Epsilon Honor Society

#### **Professional Registration:**

Registered Architect, State of Texas
Registered Architect, State of Oklahoma
Registered Professional Engineer, State of Texas
Registered Professional Engineer, State of Oklahoma
Certified to practice Structural Engineering by the Structural Engineering

Certification Board (SECB)

Registered Accessibility Specialist

National Council of Architectural Registration Boards (NCARB)

NCARB Seismic Mitigation Monograph

NCEES file holder

NCEES International Registry Certificate holder

LEED Accredited Professional

CalEMA Safety Assessment Program card holder

Texas Department of Insurance - Engineers Appointed to Perform Windstorm Inspections

#### Professional Affiliations:

Dallas Chapter AIA,
Texas Society of Architects
American Institute of Architects
American Society of Civil Engineers
Structural Engineering Institute
Structural Engineering Association of Texas
US Green Building Council
Greater Dallas Planning Council, Board Member

# Professional Organization Positions:

Dallas Chapter AIA,

Past Small Firms Committee Chair

Past Construction Industries Affairs Co-Chair

BR ARCHITECTS, Inc.

2007 N. Collins Blvd., Suite 507 • Richardson, Texas 75080 • P (972) 235-9308 • F (972) 235-9388

Project Resume Bradford Russell, AIA, P.E. BR Architects, Inc. December 2013 Page 2 of 9

National AIA

Past Executive National SFRT Committee Co-Chair

Past Member Board Knowledge Committee

Past President Dallas Structural Engineering Association of Texas -

SEAoT

Current SEAoT Chair to Structural Engineering Emergency Response

Plan (SEERP)

Current SBAoT / AIA Liaison

#### **Pending Patent:**

Patent Application No.:

13/969,529

Patent Title:

Load Bearing Structural Assembly

A Load Bearing Structural Assembly is created to transfer and absorb

loading between parts more evenly and efficiently

#### Selected Publications:

2000	'Columns – Monthly Publication of the Dallas Chapter of American Institute of Architects' – The Psychology of Architectural Space, December.
2005	'Dallas / Fort Worth Construction News' - Green design, flexible environments, enhanced roadways among current trend - editorial interview, September.
2006	'Dallas Office & Commercial – Real Estate Magazine' – 'What Next?', Issue 4.
2009	'The Structural Engineer — A Publication of the Structural Engineers Association of Texas' — Green Materials to Offset Seismic and Other Natural Disaster Events, Spring.
2009	'The American Institute of Architects Chicago Chapter - Changing Times / Time for Change' - The Use of Green Materials in the Construction of Buildings' Structure, September.
2013	'Pre-Cast Manufacturer Association of Texas – yearly membership publication' - What happens to the structure when it is created as art?,

# Litigation Consulting:

September.

2008-2012

Under contract with TBAE for reviewing and consulting on the Architectural and Structural Engineering litigation related issues of statutory provisions and rules enforced by the Board. This consulting includes competence and/or legal authority of the design professional to perform services noted as well as other issues.

BR ARCHITECTS, Inc.

2007 N. Collins Blvd., Suite 507 \* Richardson, Texas 75080 \* P (972) 235-9308 \* F (972) 235-9388

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Bradford Russell, AIA, P.E.
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2003-2014

2003

Various Architectural and Structural Engineering litigation consulting concerning various inter-discipline issues of practice. Various Architectural and Structural Engineering project failure investigations—various building types.

#### Representative Projects (Condensed list):

#### **Building Forensic Investigation:**

PRINCIPAL ALCOHOLOGIC	. In the tigations			
2005 - 2014	Various multi-story building investigations on elevator failures (Architectural and Structural) various locations through the southeas west — Architectural Investigation and Reporting, and Structural Engineering Investigation and reporting.			
2011	DART retaining wall failure building impact investigation, Irving, Texas – 12,000 sq.ft. building adjacent to DART retaining wall experienced structural failures in foundation, paving, roof framing, exterior concrete panels, etc. – Structural Engineering Investigation and Reporting.			
2010	Greenville Avenue Historic Building fire damage renovation, Dallas, Texas – 11,000 sq.ft. building footprint, 3,100 sq.ft. 2 <sup>nd</sup> floor mezzanin 6,500 sq.ft. roof top mezzanine – Structural Engineering Design and Documentation - \$1,000,000 estimated construction cost.			
2007	Robert Lynn Commercial Real Estate Services, Dallas, Texas – 151 Regal Row – 180,000 sq.ft. warehouse structural forensic investigation – Structural Engineering Investigation and Reporting.			
. 2007	WellsREIT / Emcor, Irving, Texas — 6333 N. State Highway 161 — structural investigation for various building failures including garage exterior wall joint, exterior retaining wall, exterior panel, etc. — Structural Engineering Investigation and Reporting.			
2007	JP Morgan Chase, Dallas, Texas — 6300 Harry Hines — approximately 30,000 sq.ft. investigation of multi-story building - structural capacity investigation for increase in floor loading — Structural Engineering Investigation and Reporting.			
Hotel Design:				
2006	Countries of his Manufacts Warra Toylea A 000 on A stoughtward space del			

2006 Courtyard by Marriott, Waco, Texas – 4,000 sq. ft. structural remodel - wood frame, wood truss, wood lateral support – Structural Engineering Design, Documentation - \$350,000 construction cost.

Amerihost Inn Hotel, Gun Barrel City, Texas – 75,000 sq. ft. structural engineering design, wood frame, steel and wood lateral support, concrete foundation – Structural Engineering Design, Documentation - \$5.8 million construction cost.

#### BR ARCHITECTS, Inc.

Project Resume Bradford Russell, AIA, P.E. BR Architects, Inc. December 2013 Page 4 of 9

1999

Bradford Home Suites, Dallas, Houston, North Park, Texas — 85,000 sq. ft. to 109,000 sq. ft. structural engineering design, wood frame, post tension parking and foundation — Structural Engineering Design, Documentation — \$5.6 million construction cost.

#### Commercial Design:

2003	Informatics, Inc., Plano, Texas – 35,000 sq. ft. office / warehouse - tilt up construction, steel joist, and concrete slab on grade – Architectural Design, Production and Management - \$2.7 million construction cost.	
2003	ESI, Inc., Plano, Texas – 20,000 sq. ft. office / warehouse addition to existing facility - tilt up construction, composite steel beam concrete floor, and concrete slab on grade – Architectural Design, Production and Management - \$1.8 million construction cost.	
2010	Gold Metal Recyclers, Dallas, Texas – 10,000 sq.ft. office addition into existing metal building, wood, steal, and concrete - Architectural and Structural Engineering Design, Documentation - \$0.65 million construction cost.	
2010	RTVF, Dallas, Texas – 6,000 sq.ft. footprint with 6,000 sq.ft. 2 <sup>nd</sup> floor office reconstruct, wood, steal, and concrete - Architectural and Structural Engineering Design, Documentation - \$0.75 million construction cost.	
2005	HSR Plaza Phase II, Carrollton, Texas – 14,000 sq. ft. professional office building, wood, steal, masonry, and structure – Architectural and Structural Engineering Design, Documentation - \$1.4 million construction cost.	
2014	Modern Forge Texas Office, Hurst, Texas – 5,000 sq.ft. regional manufacturing office building, steel frame, masonry, EIFS, and structure Architectural and Structural Engineering Design, Documentation - \$500 thousand construction cost.	

# Industrial Dosign:

Jupiter 190 Building 4, Dallas, Texas – 200,000 sq. ft. warehouse using tilt up construction, steel joist, and concrete slab on grade – Architectural Design, Production, and Management - \$7 million construction cost.
Excel Warehouse, Addison, Texas – 200,000 sq. ft. warehouse using tilt up construction, steel joist, and concrete slab on grade – Architectural Design, Production, and Management - \$6.6 million construction cost.
Atlas Copco Office, Garland, Texas – 2,000 sq. ft. addition to drilling assembly areas – steel frame, composite floor 2 <sup>nd</sup> floor, concrete slab on grade 1 <sup>st</sup> floor – Architectural Design, Production, Structural Engineering Design, Production - \$500,000 construction cost.

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#### Retail Design;

2005 Whitetail Nurseries, Mesquite, Texas - 17,500 sq. ft. flower growing,

distribution, and retail - Architectural Design, Production, Structural

Engineering Design, Production - \$850,000 construction cost.

2004 Family Dollar Retail / Office, Garland, Texas - 9,000 sq. ft. retail / office

using CMU load bearing masonry, steel joist, and concrete slab on grade -

Architectural Design, Production, and Management, Structural

ongineering Design, Production, and Mgmt. - \$800,000 construction cost.

1999 Walgreen's Retail Store, Plano, Texas – 14,000 sq. ft. retail store with all

amenities - steel framing, tilt up walls - Structural Engineering Design,

Project Management - \$1,200,000 construction cost.

#### Entertainment Design:

2006 Paciugo Ice Cream, Frisco, Texas - 4,000 sq. ft, interior finish out of shell

structure, dining, kitchen, rest rooms, and other amenities — Architectural Design, Documentation, Project Management - \$400,000 construction

cost.

2004 Rick's Kicks Martial Arts Studio, Frisco, Texas - 5,000 sq. ft. martial arts

studios, office, video room, and other amenities - stone / brick veneer, wood frame, steel support, wood lateral resistance, concrete foundation -

Architectural Design, Production, and Management, Structural

engineering Design, Production, and Mgint. - \$550,000 construction cost.

1993 The Ballpark in Arlington, Arlington, Texas – \$191 million structure, steel

framed, masonry veneer, concrete foundation – Architectural Construction Administration, Structural Engineering revisions during construction.

#### Governmental Design:

2010 Red River Army Blast Booth, Texarkana, Texas – 10,000 sq.ft. blast booth

for equipment repair and cleaning - Structural Engineering Design and

documentation - \$800,000 construction cost.

#### Municipal Design:

2010 City of Richardson Fire Station, Richardson, Texas - 2,500 sq. ft. metal

storage building addition to existing fire station - Architectural Design,,

Construction Administration, Structural Engineering Design and

Documentation - \$75,000 construction cost.

2001 Southern Hunt County Community Center, Quinlan, Texas - 9,800 sq. ft.

steel framed, masonry exterior - gymnasium, recreation areas, kitchen, and offices - Architectural Design, Production and Management - \$880,000

construction cost.

#### BR ARCHITECTS, Inc.

Project Resume Bradford Russell, AIA, P.E. BR Architects, Inc. December 2013 Page 6 of 9

1999

Richardson Senior Citizens Center, Richardson, Texas – 3,000 sq. ft. addition, 12,000 sq. ft. interior remodel and finish out – Architectural Design, Management and Construction Administration - \$900,000 construction cost.

#### LEED Projects (in Progress):

Green	Proj	ects
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2008

Fort Hood Family Housing, Fort Hood, Texas – 8,000 sq. ft. Community Center - single story LEED Silver – Structural Engineering Design, Production, Construction Administration, LEED Consulting - \$1,500,000 estimated construction cost.

2006

McKinney Aero County Airport, McKinney, Texas – 6,300 sq. ft. interior finish out / remodel of existing county airport into weekend residence / office – Architectural Design, Production, Construction Administration, Various Structural Engineering Design and Documentation - \$530,000 construction cost.

2006

Colorado Blvd. Residence Remodel / Addition, Dallas, Texas – 5,000 sq. ft. remodel and addition – wood framed, concrete/brick foundation early 1900's residence design by renowned Louisiana architect – Architectural Design, Structural Engineering Design, Documentation, and Management – \$630,000 construction cost.

2002

Cristina's Flowers, Plano, Texas – existing home addition / conversion to 10,000 sq. ft. flower distribution and retail – Architectural Design, Production and Construction Administration - \$600,000 construction cost.

#### Restaurant Design:

2007

Pizza Hut - Frisco Soccer & Entertainment Complex, Frisco, Texas - 6,500 sq.ft. dining, kitchen, rest rooms, and other amenities - Project Management, Structural Engineering Design - \$550,000 construction cost.

2003

Cheddars Restaurant, Arlington, Texas – 11,500 sq. ft. dining, kitchen, office, rest rooms, and other amenities – steel framing, load bearing CMU, spread and continuous footings, stone veneer - Project Management, Structural Engineering Design - \$1.0 million construction cost.

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1999

Chuckie Cheese Restaurant, Burnsville, Arizona — 11,000 sq. ft. dining, kitchen, office, rest rooms, and other amenities — Project Management, Structural Engineering Design - \$1.0 million construction

#### Multi-family Design / Management:

2007 TownParc Apartment Complex, Amarillo, Texas – 150 units, 270,000 sq.

ft. apartment complex - Structural Construction Management /

Observation - \$20 million construction cost.

2007 CityParc at Goldon Triangle, Fort Worth, Texas - 312 units, 370,000 sq.

ft, apartment complex - Structural Construction Management /

Observation - \$30 million construction cost.

1997 Arbors of Denton Apartment Complex, Denton, Texas - 244 units,

180,000 sq. ft. apartment complex - Architectural Design, Production and

Management - \$9.8 million construction cost.

1996 Hobby House Apartment Complex, Austin, Texas - 200+ units apartment

complex - Architectural Design, Production and Management - \$8 million

construction cost.

#### Religious Design:

2000 Crosspoint Church, McKinney, Texas - 20,405 sq. ft. worship center -

classroom space, kitchen, and support spaces with phased master plan — Architectural Design and Construction Administration - \$2.5 million

construction cost.

2000 Christ United Methodist Church, Plano, Texas -- 30,411 sq. ft. classroom

education building with support spaces – Architectural Design and

Construction Administration - \$3.3 million construction cost.

2010 Trinity Presbyterian Church, Plano, Texas - wind storm damage / steeple

replacement - Architectural Design, Construction Administration, and

Structural Engineering - \$50,000 construction cost.

#### Educational Design:

2003 K. B. Polk Elementary School, Dallas, Texas - 35,000 sq. ft. classroom /

office addition - concrete and masonry construction, steel frame roof,

Architectural Design - \$3.5 million construction cost.

1998 Brownsville High School, Brownsville, Texas - 70,000 sq. ft. education

building -steel frame, CMU non-load bearing walls, concrete foundation -

Structural Engineering Design - \$6 million construction cost.

#### BR ARCHITECTS, Inc.

Project Resume
Bradford Russell, AIA, P.E.
BR Architects, Inc.
December 2013
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### Medical Design:

2006

Healthy Paws Veterinary Center, Little Elm, Texas – 1,600 sq. ft. veterinary exam rooms and offices to an existing 4,500 sq. ft. veterinary exam room building, wood frame structure – Architectural Design, Documentation, Structural Engineering Design, Documentation, Construction Administration - \$250,000 Construction Cost.

1997

Auburn Medical Office Building, Auburn, Washington – 70,000 sq. ft. office building for physicians, reinforced concrete and CMU structure – Structural Engineering Design – \$10.5 million construction cost.

1997

Bristol Regional Medical Center, Bristol, TN – 100,000 sq. ft. medical facility remodel, addition – Architect, Construction Administrator – \$9.8 million construction cost.

# Interior Remodel / Design:

2010

Greenfield Foose office remodel, Dallas, Texas – 25,000 sq. ft. building foot print with 6,000 sq. ft. 2<sup>nd</sup> floor interior remodel of existing metal building space into office space - Architectural Design, Production, and various Structural Engineering - \$1,300,000 estimated construction cost.

2007

RoughRiders Merchandise Pavilion, Frisco, Texas - 4,000 sq. ft. interior finish out of existing space into retail space - Architectural Design, Production, and Construction Administration - \$340,000 construction cost.

2002

The Centre for Dance, Richardson, Texas – 10,000 sq. ft. interior finishout of existing office space into dance studio, offices, kitchen, restrooms - Architectural Design, Production and Construction Administration - \$300,000 construction cost.

2000

Randstad North America, Farmers Branch, Texas – 4,200 sq. ft. offices, restrooms, conference rooms, interior finish out – Architectural Design and Construction Administration - \$180,000 construction cost.

#### Exterior Remodel / Design:

2007

Galleria North, Dallas, Texas – 70,000 sq. ft. floor area exterior veneer redesign – Architectural Design - \$1.5 million construction cost.

# Various Unique Architectural & Structural Design:

2007

Routh Street Wine Cellar, Dallas, Texas - 450 sq. ft. underground wine cellar - Structural Engineering Design, Documentation, and Management - \$100,000 construction cost.

BR ARCHITECTS, Inc.

2007 N. Collins Blvd., Suite 507 • Richardson, Texas 75080 • P (972) 235-9308 • F (972) 235-9388

Project Resume Bradford Russell, AIA, P.E. BR Architects, Inc. December 2013 Page 9 of 9

2006 Watermark Land Development, Wylie, Texas - 500 ft. - Entry water

Feature - Structural Engineering Design, Documentation, and

Management - \$800,000 construction cost.

2006 Hilton Tulsa Southern Hills, Tulsa, Oklahoma – 2,500 sq. ft. – pool

enclosure addition to existing concrete structural frame - Structural Engineering Verification, Design and Management - \$100,000

construction cost.

2006 Residential Exercise Pavilion Saudi Arabian Prince, Dallas, Texas - 500

sq. ft. addition - wood framed structure over concrete foundation built into

hillside – Architectural Design, Structural Engineering Design, Documentation, and Management – \$130,000 construction cost



#### August 27, 2015:

# I. Negligence of Architect

Having reviewed documents applicable to the rehabilitative and re-adaptive construction Project ("T-STEM"), Phase I and Phase II at Memorial Middle School campus in Pharr, Texas, (list of documents reviewed attached hereto), I note the following:

The Standard of Care of an architect is established by the contract documents between the Owner and Architect, Standards established by authorities, and ordinary degree of skill and care that would be used by other reasonably competent practitioners of the same area under similar circumstances. In this case, the duty of care would be implicitly molded by the fact that the contracts address re-adaptive and rehabilitative work which would involve demolition on a building in which is historic in nature.

As identified in the AIA Document B141 - 1997 Part 2 for this project, the following excerpts are taken, followed by specific sections, to demonstrate areas where the Standard of Care was not met:

- §2.1.1 The Architect shall manage the Architect's services and administer the Project. The Architect shall consult with the Owner, research applicable design criteria, attend Project meetings, communicate with members of the Project team and issue progress reports. The Architect shall coordinate the services provided by the Architect and the Architect's consultants with those services provided by the Owner and the Owner's consultants.
  - "...research applicable design criteria... The Architect shall coordinate the services provided by the Architect and the Architect's consultants with those services provided by the Owner and the Owner's consultants."
- §2.3.1 The Architect shall provide a preliminary evaluation of the information furnished by the Owner under this Agreement, Including the Owner's program and schedule requirements and budget for the Cost of the Work, each in terms of the other. The Architect shall review such information to ascertain that it is consistent with the requirements of the Project and shall notify the Owner of any other information or consultant services that may be reasonably needed for the Project.
  - 'The Architect shall review such information to ascertain that it is consistent with the requirements of the Project...'
- §2.3.3 The Architect shall review the Owner's proposed method of contracting for construction services and shall notify the Owner of anticipated impacts that such method may have on the Owner's program, financial and time requirements, and the scope of the Project.
  - "...the Owner of anticipated impacts that such method may have on the Owner's program, financial and time requirements, and the scope of the Project."
- §2.4.4.1 The Architect shall provide Construction Documents based on the approved Design Development Documents and updated budget for the Cost of the Work. The Construction Documents shall set forth in detail the requirements for construction of the Project. The Construction Documents shall Include Drawings and Specifications that establish in detail the quality levels of materials and systems required for the Project.

Architectural Standard of Care
PHARR-SAN JUAN-ALAMO Independent School District
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August 27, 2015

"...provide Construction Documents based on the approved Design Development Documents and updated budget for the Cost of the Work. The Construction Documents shall set forth in detail the requirements for construction of the Project. The Construction Documents shall Include Drawings and Specifications that establish in detail the quality levels of materials and systems required for the Project."

§2.6.2.1 The Architect, as a representative of the Owner, shall visit the site at intervals appropriate to the stage of the Contractor's operations, or as otherwise agreed by the Owner and the Architect in Article 2.8, (1) to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, (2) to endeavor to guard the Owner against defects and deficiencies in the Work, and (3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect shall not be required to make exhaustive or continuous on-site Inspections to check the quality or quantity of the Work. The Architect shall neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

'(2) to endeavor to guard the Owner against defects and deficiencies in the Work...'

As identified in the Secretary of the Interior's Standards for Rehabilitation of Historic Buildings (reference attachment following), the following excerpts are taken, followed by specific sections, to demonstrate areas where the Standard of Care was not met:

#### Protect and Maintain:

'Although a historic building will usually require more extensive work, an overall evaluation of its physical condition should always begin at this level.'

#### Repair:

'otherwise reinforcing or upgrading them according to recognized preservation methods.'

#### Assessment Phase:

The Architect's work deviated from the Standard Form of Agreement Between Owner and Architect and acceptable standards, as referenced above and set by Standard of Care, in the practice of architecture in the following respects:

- (i) Failing to undertake/require reasonable testing to determine existence/condition of moisture barrier between foundation and soil, which was evident in previous reports which Architect requested and had access to;
- (ii) Failing to address lack of moisture barrier in designs;
- (iii)Failing to undertake/require reasonable structural testing of structural elements.

Architectural Standard of Care
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#### Phase 1:

The Architect's work deviated from the Standard Form of Agreement Between Owner and Architect and acceptable standards, as referenced above and set by Standard of Care, in the practice of architecture in the following respects:

- (i) Failing to consider the impact and risk of structural damage of demolition work in its designs and specifications for the construction project;
- (ii) Failing to request and follow through with the general contractor/demolition contractor to develop a specific plan containing means and methods for the demolition (even though the contract between Owner and Contractor so provided)
- (iii)Upon failure of the general contractor to develop a specific plan containing means and methods, permitting the contractor to proceed with demolition.

In reference to the above noted sections of the AIA B141 and appropriate Guidelines, given the existing condition of the property such errors and omissions constituted the direct, proximate cause of Plaintiff's damages, including the collapse of a portion of the East Wall and second story floor in the Main Building and resulting damage to the West Wall and support columns, and other structural damage to the building.

#### Phase II:

The Architect's work deviated from the Standard Form of Agreement Between Owner and Architect and acceptable standards, as referenced above and set by Standard of Care, in the practice of architecture in the following respects:

 (i) Failing to conduct reasonable investigation of the conditions of the two buildings (Stambaugh Building and Textbook Storage building) before inducing the district to approve the plans and specifications and award the construction contract;

(ii) Failing to determine existing conditions of the two buildings rather than relying upon unreasonable assumptions while preparing plans and specifications for rehabilitative/re-adaptive use.

(iii) As chief advisor to the District on design and construction issues, advising the District to proceed on a course of action without having made an adequate evaluation of existing conditions, knowing that the District would necessarily rely upon the Architect's representations.

In reference to the above noted sections of the AIA B141 and appropriate Guidelines, given the existing condition of the property such errors and omissions constituted the direct, proximate cause of Plaintiff's damages in Phase II of the Project.

Architectural Standard of Care
PHARR-SAN JUAN-ALAMO Independent School District
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#### II. Damages

#### Phase I

As a result of ERO's negligence as discussed, it is my opinion that the following damages to the building resulted:

- 1. Basement Floor: the district was required to replace the initial flooring at an estimated net cost to the district of approximately \$60,000. I have relied on the measurements and calculations contained in Agustin Rodriguez's report.
- 2. The remainder of the damages in Phase I attributable collectively and in part to the architect's, the structural engineers and the contractor's negligence which we have identified so far are represented by the following change directives and change orders as set forth in Mr. T. June Melton III's report.

Given that these changes were for the most part changes, fixes or additions to the structural elements, I have deferred to Mr. Melton to address those changes and resulting damages from a structural engineer's perspective.

#### Phase II

As I have indicated in this report, the District was entitled to a more thorough assessment of the conditions of the Stambaugh and Textbook buildings before the architectural designs were completed. Failure of that assessment and investigation resulted in the failure of the assumptions which the Architect made. I have not addressed the difference in cost to the District of the construction work at two buildings based on the Architect's initial plans and those resulting from the change orders. I have reviewed the reports of Mr. Agustin Rodriguez and the appraisals of Irene Thompson and have had discussions with Mr. Rodriguez regarding both his report and Ms. Thompson appraisals. It is my opinion that the methods used by both of them to arrive at their conclusions of cost and value are reasonable.

Mr. Rodriguez's report provides the square footage costs for five new buildings of a similar nature constructed by the District. In each case, the cost per square foot was less than the per square foot cost of the Stambaugh and Textbook buildings. The result of the added cost to the District resulted from changes that were never anticipated by the Architect during the design. The result was that the district ended losing the use of two buildings which were readapted at a cost which would have allowed for the construction of a new building.

It is my opinion that the fair market value of the two buildings is a reasonable damages model that indicates the probable loss to the District.

See report of Mr. Agustin Rodriguez and appraisal reports from Aguirre & Patterson, pertinent results summarized below:

Architectural Standard of Care

PHARR-SAN JUAN-ALAMO Independent School District

**PSJA** 

Pharr, Texas

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August 27, 2015

# High School Construction Cost Phase I:

Review of construction cost as reflected in the following documents revealed the following opinion of the costs shown:

# Research by Mr. Agustin Rodriguez:

Phase 1 - Basement Cork Flooring:

\$14.13 / sq.ft. (\$60,985.08)

Phase II - Textbook and Stambaugh Buildings:

\$193.35 / sq.ft.

# Appraisal Report prepared by Aguirre & Patterson Inc.:

Phase II - Stambaugh Building:

\$353,000.00

Phase II – Textbook Building:

\$430,000.00

## III. Negligence of Descon Defendants

There are certain standards and safety protocols applicable to construction projects that involve demolition. Additional circumstances, including the structural integrity of a building and its age, could impose an additional duty of care on the demolition contractor to take affirmative action to avoid damage to portions of the building not scheduled for demolition and other collateral damage.

It is my opinion that, given the age and structural integrity of the building, the demolition contractor was negligent in the following respects:

- 1. Failure to inspect and test the structure before proceeding with demolition;
- 2. Failure to develop a demolition plan;
- 3. Failure to seek review and approval of demolition procedures by the Architect and structural engineer;
- 4. Using unsafe and impractical methods of demolition, including failure to provide support to portions of the structure not designated for demolition.

Respectfully,

Bradford Russell, AIA, P.E., SECB

Architect / Structural Engineer / LEED AP

Director of Architecture / Engineering

BR Architects & Engineers

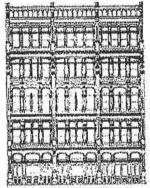


The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for R... Page 1 of 4



Standards Guldellnes Masonry Wood Metals Roofs Windows Entrances/Porches Storefronts Structural Systems Spaces/Features/Finishes Mechanical Systems Site Setting Energy **New Additions** Accessibility Health/Safety

Guidelines for Rehabilitating Historic Buildings
Introduction to the Guidelines



The Guldelines for Rehabilitating Historic Buildings were initially developed in 1977 to help property owners, developers, and Federal managers apply the Secretary of the Interior's Standards for Rehabilitation during the project planning stage by providing general design and technical recommendations. Unlike the Standards, the Guldelines are not codified as program requirements.

Together with the Standards for Rehabilitation they provide a model process for owners, developers, and Federal agency managers to follow.

The Guidelines are intended to assist in applying the Standards to projects generally; consequently, they are not meant to give case-specific advice or address exceptions or rare instances. For example, they cannot tell owners or developers which features of their own historic building are important in defining the historic character and must be preserved—although examples are provided in each section—or which features could be altered, if necessary, for the new use. This kind of careful case-by-case decision-making is best accomplished by seeking assistance from qualified historic preservation professionals in the planning stage of the project. Such professionals include architects, architectural historians, historians, archeologists, and others who are skilled in the preservation, rehabilitation, and restoration of the historic properties.

Those approaches, treatments, and techniques that are consistent with the Secretary of the Interior's Standards for Rehabilitation are listed under the "Recommended" section in each topic area

The Guidelines pertain to historic buildings of all sizes, materials, occupancy, and construction types; and apply to interior and exterior work as well as new exterior additions. Those approaches, treatments, and techniques that are consistent with the Secretary of the Interior's "Standards for Rehabilitation" are listed in bold-face type under the "

Recommended" section in each topic area; those approaches, treatments, and techniques which could adversely affect a building's historic character are listed in the "Not Recommended" section in each topic area.

To provide clear and consistent guidance for owners, developers, and Federal agency managers to follow, the "Recommended" courses of action in each section are listed in order of historic preservation concerns so that a rehabilitation project may be successfully planned and completed—one that, first, assures the preservation of a building's important or "character-defining" architectural materials and features and, second, makes possible an efficient contemporary use. Rehabilitation guidance in each section begins with protection and maintenance, that work which should be maximized in every

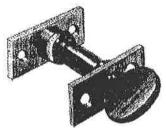
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project to enhance overall preservation goals. Next, where some deterioration is present, repair of the building's historic materials and features is recommended. Finally, when deterioration is so extensive that repair is not possible, the most problematic area of work is considered: replacement of historic materials and features with new materials.

To further guide the owner and developer in planning a successful rehabilitation project, those complex design issues dealing with new use requirements such as alterations and additions are highlighted at the end of each section to underscore the need for particular sensitivity in these areas.

# How to Use The Guidelines



Identify, Retain, and Preserve

The guldance that is basic to the treatment of all historic buildings—identifying, retaining, and preserving the form and detailing of thos architectural materials and features that are important in defining the historic character—is always listed first in the "Recommended" area. The parallel "Not Recommended" area lists the types of actions that are most apt to

cause the diminution or even loss of the buildings's historic character. It should be remembered, however, that such loss of character is just as often caused by the cumulative effect of a series of actions that would seem to be minor interventions. Thus, the guidance in *all* of the "Not Recommended" areas must be viewed in that larger context, e.g., for the total impact on a historic building.

**Protect and Maintain** 

After Identifying those materials and features that are important and must be retained in the process of rehabilitation work, then *protecting and maintaining* them are addressed. Protection generally involves the least degree of intervention and is preparatory to other work. For example, protection includes the maintenance of historic material through treatments such as rust removal, caulking, limited paint removal, and re-application of protective coating; the cyclical cleaning of roof gutter systems; or installation of fencing, protective plywood, alarm systems and other temporary protective measures. Although a historic building will usually require more extensive work, an overall evaluation of its physical condition should always begin at this level.

The parallel "Not Recommended" area lists the types of actions that are most apt to cause the diminution or even loss of the buildings's historic character.

Repair

Next, when the physical condition of character-defining materials and features warrants additional work *repairing* is recommended. Guidance for the repair of historic materials such as masonry, wood, and architectural metals again begins with the least degree of intervention possible such as patching, plecing-in, splicing, consolidating, or otherwise reinforcing or upgrading them according to recognized preservation methods. Repairing also includes the limited replacement in kind—or with compatible substitute material—of extensively deteriorated or missing parts of features when there are surviving prototypes (for example, brackets, dentils, steps, plaster, or portions of slate or tile roofing). Although using the same kind of material is always the preferred option, substitute material is acceptable if the form and design as well as the

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substitute material itself convey the visual appearance of the remaining parts of the feature and finish.

Replace

Following repair in the hierarchy, guidance is provided for *replacing* an entire character-defining feature with new material because the level of deterioration or damage of materials precludes repair (for example, an exterior cornice; an interior staircase; or a complete porch or storefront). If the essential form and detailing are still evident so that the physical evidence can be used to re-establish the feature as an integral part of the rehabilitation project,

GATE HINGES AND PASTS.



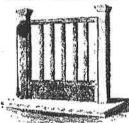
then its replacement is appropriate. Like the guidance for repair, the preferred option is always replacement of the entire feature in kind, that is, with the same material. Because this approach may not always be technically or economically feasible, provisions are made to consider the use of a compatible substitute material.

It should be noted that, while the National Park Service guidelines recommend the replacement of an entire character-defining feature under certain well-defined circumstances, they never recommend removal and replacement with new material of a feature that--although damaged or deteriorated--could reasonably be repaired and thus preserved.

Design for Missing Historic Features

When an entire interior or exterior feature is missing (for example, an entrance, or cast iron facade; or a principal staircase), it no longer plays a role in physically defining the historic character of the bullding unless it can be accurately recovered in form and detailing through the process of carefully documenting the historical appearance. Where an important architectural feature is missing, its recovery is always recommended in the guidelines as the





first or preferred, course of action. Thus, if adequate historical, pictorial, and physical documentation exists so that the feature may be accurately reproduced, and if it is desirable to re-establish the feature as part of the building's historical appearance, then designing and constructing a new feature based on such information is appropriate. However, a second acceptable option for the replacement feature is a new design that is compatible with the remaining character-defining features of the historic building. The new design should always take into account the size, scale, and

material of the historic building itself and, most importantly, should be clearly differentiated so that a false historical appearance is not created.

Alterations/Additions to Historic Buildings

Some exterior and interior alterations to historic building are generally needed

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to assure its continued use, but it is most important that such alterations do not radically change, obscure, or destroy character-defining spaces, materials, features, or finishes.

Alterations may include providing additional parking space on an existing historic building site; cutting new entrances or windows on secondary elevations; inserting an additional floor; installing an entirely new mechanical system; or creating an atrium or light well. Alteration may also include the selective removal of buildings or other features of the environment or building site that are intrusive and therefore detract from the overall historic character.

The construction of an exterior addition to a historic building may seem to be essential for the

new use, but it is emphasized in the guidelines that such new additions should be avoided, if possible, and considered only after it is determined that those needs cannot be met by altering secondary, i.e., non character-defining interior spaces. If, after a thorough evaluation of interior solutions, an exterior addition is still judged to be the only viable alterative, it should be designed and constructed to be clearly differentiated from the historic building and so that the character-defining features are not radically changed, obscured, damaged, or destroyed.

Additions to historic buildings are referenced within specific sections of the guidelines such as Site, Roof, Structural Systems, etc., but are also considered in more detail in a separate section, New Additions to Historic Buildings.

Energy Efficiency/Accessibility Considerations/Health and Safety Considerations

These sections of the rehabilitation guidance address work done to meet accessibility requirements and health and safety code requirements; or retrofitting measures to conserve energy. Although this work is quite often an important aspect of rehabilitation projects, it is usually not a part of the overall process of protecting or repairing character-defining features; rather, such work is assessed for its potential negative impact on the building's historic character. For this reason, particular care must be taken not to radically change, obscure, damage, or destroy character-defining materials or features in the process of rehabilitation work to meet code and energy requirements.

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AMSTAR ENGINEERING, INC.

Structural/Civil Consultants 707 River Road Austin, Texas 78734 (512) 263-3661 Fax (512) 607-6641 Registered Professional Engineers

Texas Oktahoma Arizona Londiana Georgia Colorado

Mississippi Utah North Carolina. Kentucky Alahama Arkansas

Texas Firm F-1975

THOMAS JUNE MELTON, III. Licensed Professional Engineer October 19, 2013

#### STATES OF REGISTRATION:

Texas

Georgia

Mississippi

Oklahoma

Arizona

Colorado

COLOR

Utah

Louisiana

North Carolina

Kentucky

Alabama

Arkansas

#### STATE DISCIPLINES

.Structural Engineering

Civil Engineering

Architectural Engineering - Structural, Civil, Building Design, HVAC, Plumbing Engineering

#### FEDERAL CERTIFICATION

Department of Defense Nuclear Fallout Shelter Analyst 511-1609-68

#### EDUCATION: -

New Mexico Military Institute 9/58-5/60 HS Diploma 5/60 University of Texas, Austin 9/60-1/65 BS ArE 1/65 University of Texas, Austin 1/65-8/66 MS ArE 8/66

#### EMPLOYMENT HISTORY:

10/88 to present - President, Amstar Engineering, Inc.; Austin, Texas. CEO of architectural/structural/civil engineering design firm engaged in commercial, industrial and residential building and site design, general consulting, inspections, and forensic analysis and determinations for owners, architects, engineers, contractors and property managers.

8/85 - 10/88 - Travis Associates, Consulting Engineers, Austin, Texas; Structural and civil engineering project design engineer. Projects included structural design of office buildings, apartments, sewage treatment plants and courthouse modifications. Structural investigative and repair analysis included apartments, houses, office buildings and government facility. Civil engineering design included roads, drainage, wastewater collection and disposal facilities for various developments.

9/84 - 8/85 - Capital Erectors, Austin, Texas, Vice president and CEO of newly-formed steel erection company. Duties included structural analysis of complex steel erection procedures.

general administration, contract negotiation, personnel control, field coordination, inspection and safety evaluations.

- 11/82 3/84 DalMac Development Company, Dallas, Texas; Vice President and CEO of DalMac Residential Development Corporation in charge of acquiring developable land for apartment and condominium projects in the Dalias area. Responsibilities included general administration, contract negotiation, civil engineering analysis of proposed land acquisitions, and structural engineering evaluation of existing apartments and condominiums proposed for acquisition.
- 9/75 9/84 President; T. J. Melton, III & Associates, Inc., Midland, Texas, a civil/structural build/design firm. Structural engineering projects included Westgate Business Park (offices and warehouses), medical facilities, oilfield structures, insurance offices, retail centers, hotels, schools, churches and large residences. Civil engineering projects included Westgate Acres roads, utilities and drainage, and a large water-recreation park. Company closed in 1984 due to overall decline in oil- related Texas economy. Worked full time from 9/75 to 11/82; part- time from 11/82 to 3/84, and full time from 3/84 to 9/84.
- 9/73 9/75 Project engineer; Bryant-Curington, Consulting Engineers; Austin, TX; Project design engineer for expansion to Davis Water Treatment Plant; preliminary studies of Onion Creek Sewage Treatment Plant; and various subdivision road, bridge and drainage projects. Responsibilities included structural design of clarifiers, filtration, chemical buildings and laboratories, and associated civil design of road access, parking and drainage facilities.
- 5/70 9/73 Greeven & Stoeltje, Consulting Engineers; Austin, TX; Project structural design engineer for various projects including elementary schools at Braker Lane, Rundburg Lane and Austin High School; Water Resources State Office Building, Travis County Courthouse Annex and Parking Garage, University of Texas Regents Building, various University of Texas buildings; smaller office and retail buildings, and University of Texas of the Permian Basin. Responsibilities included full charge design, coordination of drafting and some project inspection. Developed computer software for building analysis. Buildings varied in size from single story to twelve-story structures.
- 9/68 5/70 Structural Engineer, Eugene Wukasch & Associates; Austin, TX; Design engineer in charge of working drawing preparation, coordination between various design professionals, field inspection and client negotiation for various buildings, including retail facilities, apartments, churches, mobile homes, mobile schools and various projects for the Corps of Engineers. Military projects included aircraft hangars and offices, commissary expansion and WAC barracks at Ft. Sam Houston and Brooks AFB.
- 10/67 9/68 Associate Engineer; Fluor Corporation, Houston, TX; Project engineer in charge of structural design of petrochemical facilities, including buildings, pipe support structures and foundations, and civil design of drainage, pavement and wastewater collection and disposal. Responsibilities included directing a team of engineers involved in specialized design of steel and concrete tower structures for wind and earthquake loadings. Clients included Texaco and Petrotex Petroleum Company. Most projects exceeded \$5 million in construction value.
- 8/66 10/67 Structural Designer; Brown & Root, Inc., Houston, TX. Design engineer of domestic, foreign and offshore facilities including docks, warehouses, petroleum facilities, drilling platforms, and government buildings. Much of the design work performed during this period encompassed numerous smaller components of larger structures, such as specialized design of concrete retaining walls, column and composite beam design, buckling and fatigue analysis of structures subjected to impact from floating vessels and ice flows, and specialized steel connection design. Most projects were undertaken in a team-effort atmosphere. Clients included Gelgy Chemical Company and Nakoosa Edwards Company.

1/65 - 8/66 - Student; University of Texas; Austin, TX; Working toward Master of Science degree in Architectural Engineering. Worked as a teaching assistant in the Department of Drafting.

6/63 - 9/63 - Structural Draftsman; Preston M. Geren, Architect-Engineer; Ft. Worth, TX; Duties included structural drafting and minor engineering calculations. Projects included various office buildings and high schools. Structural experience included elementary steel connection and base plate design, concrete footings; concrete slab on grade; suspended concrete channel floor systems; and masonry load bearing wall analysis. Other duties included coordination between structural and architectural departments and checking of shop drawings for various projects.

6/61 - 8/61 - Rodman; Texas Highway Department; Midland, TX; Surveyor duties, including quantity takeoffs and measurements; soil tests; surveyor calculations and duties.

9/60 - 1/65 - Student; University of Texas; Austln, TX; Working toward Bachelor of Science degree in Architectural Engineering.

#### PROFESSIONAL MEMBERSHIPS:

American Institute of Steel Construction
American Concrete Institute - Previous
National Council of Engineering Examiners
Texas Society of Professional Engineers
National Society of Professional Engineers
American Society of Civil Engineers

#### Past Memberships:

Chairman - Building Code Review Committee - Midland Chairman - Planning & Zoning Committee - Midland Planning & Zoning Commission - Midland Utility Windowpane Advisory Committee - Midland

#### PUBLICATIONS:

Melton - "Structures Video Seminar" 1988 thru 1997.

Melton - "When the Bough Breaks: Building Failures and the Structural Engineering Expert" - 1989; workbook revised 1996.

Melton - "Failures of In-Service MPC Parallel Chord Wood Floor Truss Components Reveal Deficiencies in ANSI/TPI Standards - 2000

Melton - "ADA-A/E Title III Design Video Seminar", 1994.

# THOMAS JUNE MELTON, III PARTIAL PROJECT LISTING INCLUDING AMSTAR ENGINEERING PROJECTS (Significant projects listed only)

The following partial listing reflects the types of projects for which Thomas June Melton, III has provided engineering services:

#### FOR AMSTAR ENGINEERING:

A-1 Fire & Security Foundation / Drainage Evaluation - Waco A-1 Rental Store - Austin Academy Surplus Foundation/Tiltwall/Framing - Austin 6903 Agave Cv. Plumbing/Structural - Austin Aircraft Scaffolding - San Antonio Airport Marriott Mezzanine - Austin Alamo Business Center/City Park Buried Utilities Investigations - San Antonio American Freight Drainage Analysis / Drainage Utilities - Schertz, TX 824 Angel Light - Lake Travis Applehead Cove Repairs - Horseshoe Bay, TX Applied Materials - Austin Architectural Metals (Thresholds) Copyright Dispute - Houston 14731 Arrowhead - Lake Travis, TX Austin/Bergstrom Airport Pedestrian Bridges - Austin 32 Autumn Oaks Dr. Roof Framing/Water Damage/Repair - Hills of Lakeway AVAI Boat Dock - Austin Baby Acapulco Restaurant Addn. - Austin Balcones Club Apartments Investigation - Austin Bank United - Austin Beaumont Federal Correctional Complex - Beaumont, Tx #11 Beecher St. Structural Repairs - Austin Bell Towers Drainage/Parking - Austin 2315 W. Ben White Medical Facility Evaluation - Austin 4311 Bennedict Flood Damage/Drainage Investigation - Austin: Best Western Hotel Stucco / Water Intrusion - Austin 12432 Beverly Village Ct. #6 Wind Bracing / Framing Repairs - Austin Bingle Road Shopping Center Investigation - Houston 5325 Texas Bluebell Window Leakage/Site Drainage - Spicewood, TX Boeing Building 3238L - Austin Bois-Du-Lac Condominiums - Dallas 505 Bolivar Framing / Connectors / Flood Plane - Bellaire, TX 7804 Brightman Lane Structural/Truss/Water Penetration - Austin 4805 Brook Creek Cove Foundation Investigation - Austin Brookstone Apartments Third Floor Walkway Removal - Austin Bridge Partial Collapse Inv. - Hwy 518, Shreveport, LA 603 Bull Creek Stabilization - Austin 1441 Bull Horn Loop Foundation/Drainage - Round Rock Bullock, Sandra, 2801 River Hills Road Multi-Damage Investigation - Austin 4600 Bunny Run Structure - Austin 7304 Burnet Rd Fire Damage Investigation - Austin Butterfield I & II Investigation - San Angelo 1109 C&D 15 1/2 St. Structural / Foundation / Drainage - Houston

Camino Real Apartments Canopy/Structure/Hazards - Austin

4300 Canoas Roof Framing - Austin

2400 Canoas Drive Structure - Austin

240 Canterbury Truss/Beam Deficiencies - Dripping Springs, TX

221 Canyon Trail Swimming Pool Analysis - Austin

CAP Water Treatment Plant - Tucson, AZ

Capital Metro Bus Parking/Retaining Walls/Flood Study - Austin

Capital Metro Maintenance Bullding Drainage/Structural Addition - Austin

Cardinal Hills Unit 7 Wastewater Study - Travis County

Casa Granda Hwy, Flood Relief & Bridge Rail - Phoenix, AZ

3408 Cascadara Drainage/Structural - Austin

Cathelena's Restaurant Structural/Septic - Cedar Park

220 Cedar Hurst Lane Chair Lift Analysis - Lake Travis

11094 Cedar Park Drainage/Structural - San Antonio

Cedar Park Community/Recreational Center Stairs and Rails - Cedar Park

2725 Cedar Springs Framing/Foundation/Drainage/Moisture Investigation - Round Rock

2714 Cedar Springs Framing/Foundation/Drainage/Moisture investigation - Round Rock

Centercourt Drainage - Austin

Centex Retaining Wall Collapse Inv. Rivermist/Waller Ranch - San Antonio

Chainsaw Massacre Movie Set Structural Analysis - Austin

8400 Chalk Knoll Foundation/Pool Investigation - Austin

8904 Chalk Knoll Drive Fireplace/Chimney/Water Intrusion Inspection - Austin

25938 Chapman Falls Foundation / Drainage Inv. - Richmond, TX

Chase Apartments Roof / Structural / Moisture Assessment - Austin

City-County Jail - Oklahoma City, OK

City National Bank - Austin

City Park Recreation Building - San Marcos

9403 Clearrock Additions - Austin

Cole Baptist Church Roof Truss Fallure/Injury - Duncanville

College House CoOp Rehab - Austin

College Park Shopping Center - Killeen

Colorado Building Improvements - Austin

Commadore Riverboat Hull Repairs - Austin

111 Congress Sign - Austin

Congress Ave. Mini Storage Fire Damage Investigation - Austin

Continental Construction Casino Delay Damages Evaluation - Alabama

Convenience Store Canopy - Fredricksburg

2208 Conway Cove Framing Assessment - Pflugerville

Copperas Cove Jr. High Connections - Copperas Cove

225 Corinthian Swimming Pool/Septic System Investigation - Lakeway

Cornett Roof Truss Failure/Injury - Austin

Corridor Park 6 - Cort Furniture - Austin

2150 Cottonwood Creek Foundation/Pool Assessment - Austin

Coulver Rd. Septic Systems - Austin

617 Coventry Residential Design - Austin

Crane Manbasket - Austin

2905 Creeks Edge Parkway Masonry Repairs - Austin

911 Cross Wind Investigation - Austin

Crossland Economy Studio - Austin

Cypress Semiconductor Improvements - Austin

DART City Place - Dallas

DART Improvements - Dallas

Days Inn - Diamond Bar, CA

Dean Witter Sign - Austin

9212 Decker Lane Site Damage Assessment - Austin

Deeb Wood Truss Defect Investigation - WV

Delatte Mobile Home Moisture Intrusion/Structural/Ventilation/Plumbing - Louisiana

Denver Pavilions Shopping Center - Denver, CO Department of Economic Security West - Phoenix, AZ Ditimar Lumber Warehouse - San Antonio Doss Road Wastewater System - Travis County 12506 Dover Drive, Montgomery, TX (Chapman) Downtown Triparty Bridge - San Antonio. Duska Swimming Pool - Austin Dutchman's Market Freezer Building Investigation - Fredericksburg Duval County Courthouse Water Intrusion/Superstructure/Civil - San Diego, TX 421 East 6<sup>th</sup> ADA Issue - Austin 805 East 32<sup>nd</sup> St. Medical Offices Foundation/Plumbing - Austin #13 Ehrlich Pool/Retaining Wall Repairs - Austin-Educare Housing - Austin Eisley Library Door Accident - Lincoln, NE El Monterrey Apartment Foundation Investigation - Austin Engineering ethics opinion letter (confidential) Encycle Texas Plant Dismantle Investigation - Corpus Christi 2408 Enfield Waterproofing and Drainage Investigation - Austin Entertainment & Sports Arena - Raleigh, N.C. Escala Apartments - Retaining Wall Fallure / Drainage - Austin Esther's Follies Expansion - Austin 12210 Fairhaven Foundation / Drainage Inv. - Montgomery, TX Far West Skyline Condomium Rehab - Austin 101 Fawn Meadow Repairs - Austin 101 Fawn Hollow Bracing, Windows, Foundation Issues - Dripping Springs, TX FDNS Medical Building Thermal Barrier / Vinyl Materials Investigation - New Braunfels FDNS Medical Building Thermal Barrier / Vinyi Materials Investigation - Seguin 101 Firebird Pool/Wall - Austin 121 Firebird St. - Roof repairs - Lakeway, TX Flamingo Cantina Canopy & Mezzanine - Austin Fleetwood Subdivision - Memorial Dr. Flood / Water Barrier Drainage Investigation - Houston Flower Mound High School Lewisville ISD Water Discharge - Flower Mound, TX Forest Creek Aerial Crossing - Pflugerville Forest Creek Retaining Wall/Culverts - Pflugerville Forest Oaks Wastewater Wetwell - Cedar Park Ft. Bliss Hangar Door Investigation - El Paso 304 W. 4th St - Austin 807 E. 14th St. Condo Building Water Penetration/ Structural - Austin Foundation/Superstructure Analysis - Primary School - Eagle Lake Foundation Analysis 11620 Loweswater - Austin 509-521 Franklin Investigation - Waco 2800 French Place Drainage/Structural Investigation - Austin Fresno Federal Courthouse Structural Assessment - Fresno, CA Fruit-O-Loom Slip/Fall Investigation - Harlingen, TX Fulkes Middle School Beam Connections - Round Rock Gables at Barton Creek Column Repair - Austin Galleria Oaks Shopping Center investigation - San Antonio 4205 Gattle School Road Pavement Assessment - Round Rock, TX 11901 Gateway Swimming Pool/Flooding/Drainage - Austin General Mall Facility - Bryan ... General Telephone & Electric - Irving Georgetown Jet Addition - Georgetown, TX 42 Governors Court Structural/Fire Inspection - Austin Grace Lutheran Church - Wimberly

Grand Casino - Tunica, MS.

Grand Casino Hotel Structures - Biloxi, MS

9714 Grand Oaks Low Speed Car Crash - Structural Damage - Austin Granite Quarry Plant Warehouse - Austin Grapevine Market - Austin Greathouse Elementary Platforms - Midland Greatland Office Park Improvements - San Antonio Hackberry Convenience Store Canopy - San Antonio Habitat Village Investigation - Austin Harbor Circle Swimming Pool Investigation - Georgetown Harthan House Apartments (Historic) - Stabilization and Restructure - Austin Hartman Post House - Lake Travis Hatch/Carr/Ashcreek Structural Investigation - Austin Headquarters Bldg - Kirtland AFB 20707 Henry Floor/Roof Decking Investigation - Lago Vista, TX High Drive Foundation Dispute Resolution - Lago Vista Highcrest Apartments Drainage / Trusses - San Marcos, TX Highway 290 W 33ft Billboard - Austin Hill Country Apartment Fire/Fireplace Damage Investigation - San Marcos, TX Hill Country Apartment Foundation Investigation - San Marcos, TX Hilton Hotel Wood Truss Defect Assessment - Oklahoma City, OK. Hoffbrau Restaurant Addition - Austin Holiday Inn Select Loop 410 Retaining Walls/Porte-Cochere - San Antonio Holiday Inn Select Canopy Wall - San Antonio, TX Holloman AFB F117A Maintenance Docks/Hangars - Alamogorda, NM 6212 Holloway Residential Foundation/Superstructure Damage Repair - Austin Hollywood Video Inspection, 1050 I35 - Georgetown Horizon/Warner Bros. Sound Stage 3 & 5 Structural - Austin, TX Horseshoe Casino Parking Garage Stairs - Bosier City, LA Horseshoe Casino Stair Tower - Bosier City, LA Hunter Construction Co. Steel Building Fire Investigation - New Braunsfels Hurricane Katrina/Rita Damage Evaluations - MS, LA, TX 12343 Hymeadow Investigation - Austin 5508 Hwy 290 Selsmic Evaluation - Austin Ingleside Fleet Mine Center - Ingleside Ingleside Village Apartments - Ingleside International Center for Trade Truss Connections - Eagle Pass, TX J.C. Penny Wall Collapse - Dallas Jester Estates Oceanquest Pool Investigation - Austin Joe's Crab Shack Restaurant Code Violations / Hazard Analysis - Houston Jonestown Lighthouse - Lake Travis 126 Kittle Lane Foundation / Drainage - Three Rivers, TX 19 Knob Hill Circle Interim Deck Repair - Austin Knox OSSF Feasibility Study - Austin Knuckleheads - Austin Lake Creek Village Shopping Center - Austin 5475 Lakeshore Drive Roof Assessment - Lago Vista 24714 Lakeside Cove Structural Inspection - Austin Lakeway Church Fellowship Hall - Lakeway 6609 N. Lamar Fire Investigation - Austin 10817 N. Lamar - Roof Structure Repair - Austin 1607 S. Lamar - Austin Lamar Craton Truss Collapse/ Injury - Alabama Lanshire Duplex Stair Collapse Investigation - Austin Lake Austin Riverboat Docking Facility - Austin Lake Travis Lighthouse - Jonestown, TX

Lake Travis Post Office - Lakeway

4807 Lake Wichita Foundation / Drainage Inv. - Richmond, TX

1010 N. Lamar Roof/Wall Restructure – Austin 1420 N. LBJ Dr. Vibration/Energy Investigation - San Marcos 10807 Legends Lane Plumbing Leak Damage - Austin Lewisville ISD School Construction Deficiency Evaluation - Lewisville Light Bar Addition - Austin 1487 Little Bear Foundation Evaluation - Hays County, TX LoLa Convalescent Ctr. Roof Collapse Investigation - Austin Lockheed Maintenance Facility - Austin Lockheed Missile Mezzanine - Austin Log Cabin Structural/Foundation - New Mexico 13915 Lone Rider Trail Trusses - Austin 2401 Longview Phi Kappa Psi Temporary Structure - Austin Louislana State Highway Timber Bridge Collapse - LA 11620 Loweswater Drainage/Structural - Austin Luis Fall / Injury / Roof Framing / Fasteners Issue - Houston 606 W. Lynn Condos Investigation - Austin McCracken Pool Trusses - Austin McCreary County USP - Kentucky 202 E. Main Restaurant Fire Damage Repair - Round Rock Malmin Structural Damage Assessment Flooding/Drainage/Utilities - Austin Mandalay/Circus Circus ADA Shower Seat/Injury Investigation - MS Marble Falls Quarry Office Building - Marble Falls, TX 711 Marshall St. Foundation / Frame Investigation - Houston. 819 Mariner Structural/Foundation Investigation - Round Rock 703 Mame Ln. Lightning Damage Assessment - Houston Masonry Column Collapse Investigation - Houston 2518 Mathews Balconies / Boat Dock / Hellcopter Pad Inv. - Austin Maxwell Car Wash - Taylor Maxwell: Wastewater - Austin Meadowbrook Gardens Apartments Designs/Inspections - Cedar Park Meadowlakes Shopping Center - Marble Falls Medical Center Automatic Door Closer Accident - Bentonville, AR Memorial Baptist Church Trusses - Killeen Menard BiFold Door Accident Investigation - Janesville, WI Mezzaluna North - Austin Micron Devices Seismic - Utah 310 Mitchell Foundation / Plumbing - Weatherford, TX Mississippi Interstate Bridge Collapse - MS 2004 Mistywood Residential Repairs - Austin Morrow Roof Member Collapse/Fall - Birmingham, AL 205 W. Morse Moisture/Mold/Storm Windows - Fredericksberg, TX 352 Mostyn Ln. Foundation / Framing Evaluation - San Marcos Motel 6 Balcony/Stairs Restructure - Amarillo Motel 6 Balcony/Stairs Restructure - 8010 N. I35 - Austin Motel 6 Hurricane Ike Damage Evaluation / Reconstruction - Jersey Village, Motel 6 Hurricane Katrina Damage Assessment - Biloxi, MS Motel 6 N.1H35 Additions - Austin Motel 6 Walkways/Stairs - Topeka, KS Motel 6 Structural/Civil Evaluation - Camp Springs, MD Motel 6 Structural/Civil Evaluation - Cranberry, PA Motel 6 Structural/Civil Evaluation - Moline, IL MSI Shop Expansion - Kyle Mt. Olive Lutheran Church Addn. - Austin Motorola Building "W" - Austin Moss C.J.C. - Oklahoma City, OK

Museum of the Southwest Accident / ADA evaluation - Corpus Christl, T)

N.A.S. Commissary - Kingsville Nellis AFB Composite Facility - Las Vegas, NV New Elitch Gardens Theme Park - Denver, Co. 413 New Ledo Swimming Pool Investigation - Austin New Lexington Fayette County Detention Center - Lexington, KY New Territories Shopping Center Investigation - San Antonio 1211 Newton / Austin Motel Retaining Wall Collapse Repair Analysis - Austin 19 Nob Hill Circle Structural Expansion Study - Austin North High School - Carrolton North Hills Townhouse Foundation investigation - Austin North Lamar/Kramer Lane Warehouses - Austin North Park Hotel Fire/Fireplace/Truss Repairs - Austin 1210 Nueces - Veneer / Deck / Stair Repairs - Austin 250 Oak Heights Barrier Drain - Wimberly Oak Knoll Residential Foundations - San Marcos Oakwood School Trusses - College Station 10807 Oasis Foundation Fallure Inv./Negotiation - Houston 4802 Ocean Drive Structural/Ventilation Assessment - Corpus Christi, TX Olifield Road Hwy, Intersection Accident / Drainage / Non-Licensed Engineer - L Old Lockhart Hwy. Mobil Home Park - Travis County Olivarez Subdivision/Utilities/Street Collapse Investigation - McAllen Oltorf Oaks Apartments Chimney Fire Investigation - Austin One Corporate Center Investigation - Austin One Liberty Place Improvements - Waco One Tech Plaza - Austin Oyster Landing Boat Docks - Austin Paleface Grocery - Travis County Palm Valley Retain Stucco / Substrate - Round Rock Paniagua Truss Collapse/Injury - Phoenix, AZ 12892 Park Art Studio - Austin Park Central Apartments Stair Fall Inv. - Dallas 6103 Peachtree Hill Ct Drainage / Foundation Damage - Kingwood 2212 Pearl Fire Damage Inspection - Austin 540 Pecan Grove Boat Dock improvements - Horseshoe Bay Penbrook Apartments Masonry Veneer Repairs - Austin Penbrook Club Apartments Building 6 Breezeway Inspections - Austin J. C. Penny Brick Veneer Wall Collapse - Dallas Pete Maravich Assembly Center Investigation - Baton Rouge, LA Point Venture Townhouse Multi Building Structural Assessment - Point Venture, TX Precision National Structural Investigation - Waco Public Housing Fall Hazard Investigation - San Antionio 29384 Raintree - Plumbing / Foundation / Superstructure Investigation - Fair Oaks Ranch Rayco Fire Retardant Investigation - San Antonio RCBS Hospital HVAC / Contract Issues - Austin 1913 Real Catorce Foundation/2<sup>nd</sup> Floor Framing Repairs - Austin Recreation Sports Building/A&M/Window Wall - College Station Red Robin Restaurant Air Quality/Molsture/Roof/wall Leaks - San Antonio Regency Manor Apartments Structural Walkway Replacements - San Antonio Regents School Water Intrusion/Wood Floor Damage Investigation - Austin 8910 Research Parking Lot Investigation - Austin 12034 Research High Speed Vehicle Collision Vibration/Energy Damage Assessment - Austin Retano Wastewater System - Austin 2816 Revere Townhouses Foundation / Superstructure Inv. - Houston 1913 Rio Catorce TJI Floor Joist Investigation - Austin River Authority Conveyor - San Antonio 3800 Rivercrest Boat Dock Feasibility Study - Austin

2311 Rogge Ln Swimming Pool Leak/Foundation Assessment - Austin Rone Celiphone 160 Ft. Guyed Tower - Barton Creek, Austin Round Rock Express Baseball Stands/Rails - Round Rock Round Rock Express Cables/Structural Designs - Round Rock Round Rock Express Supports - Round Rock 10713 RR 620 Roof Assessment - Austin 12301 Saber Trail Wind Load Stabilization - Austin Sam Bass Road Concrete Pavement Analysis - Round Rock, TX Samsung U. Project I Beam Connections - Austin San Antonio Housing Authority v. Magi Realty - Litigation 150 + Houses - San Antonio 2200 Scenic Boat Dock Repairs - Austin 16020 Scenic Oaks Trail Flood Analysis - Buda, TX Schneider Manufactured Home Investigation - La Grange, TX Secretariat Masonry Arches/Drainage - Hayes Co., TX Segefield Drainage Study - Austin 6106 Shadow Mountain Structural Repairs - Austin, TX Sharper Image Mezzanine - Austin Sheraton Hotel Parking Garage Repairs - Austin Silver Pine Pool - Austin Simplex Grinnell Structural Evaluation - Pflugerville, TX Sir Ivor Cove Swimming Pool Evaluation - Austin, TX 419 E. Sixth St. Second Floor Rehab - Austin 421 E. Sixth St. ADA Investigation - Austin 500 E. Sixth Rehab - Austin 500 E. 6th Fire Escape Restructure - Austin 505 E 6th Structural Investigation - Austin 515 E, Sixth Roof Framing - Austin 600 E. Sixth Roof & 2nd Floor Framing Evaluation - Austin 723-725 E. Sixth Rehab - Austin 10211 Skyflower Floor Stabilization - Austin Skylight Accidental Breakage/Fall / Injury - Mission, TX Skyridge Plaza Structural Inspection - Round Rock, TX South Grand Prairie High School - Grand Prairie 329 South Guadalupe Water Intrusion - San Marcos Southlake Shopping Center Stairs - Southlake, TX Southlake Subdivision Sanitary Sewer Collapse - Southlake, TX 120 South Main Roof Drainage Issue - Victoria South Texas Art Museum - Structural Barriers / ADA / Injury - Corpus Christi Southwest Medical Park - Austin Southwest Texas State University Bridge - San Marcos Southwestern University Fine Arts Investigation - Georgetown SpeedFabCrete Tilt Wall Investigation - San Antonio 702 SpringBrook Water/Floor Truss Damage - Leander St. Paul's Catholic Church Addition - Austin St. Pete Times Forum Arena Concrete Tolerances Evaluation - Tampa Bay, F #18 St. Stephens Pool Investigation - Austin Stair and Guardrail Designs - Sheppard AFB St. Stephens School, Quinn Hall Addition - Austin Stahl Roof Condition Assessment - Austin Stayton Water Damage - Hardwood Flooring /Plumbing / HVAC Spec. Mediation - Victoria Steck Vaughn Floor Structure Investigation - Austin 119 Stephens Lane Window Leakage Investigation - Round Rock Stop and Go Boat Storage Inspection - Austin Studio 6 Motel Sam Houston Parkway Foundation/Flooding/Plumbing - Houston Stum Ladder Fall Investigation - Arlington 5353 Sugar Hill Foundation / Swimming Pool / Drainage Investigation - Houston

Summit Apartments Wood Balcony Investigation - San Marcos, TX Summit at West Rim Foundation - Austin Sun Oil E/W Pipe Rack - Houston Sunchase Condos Investigation - Austin Sunchase Unit 102 - Austin Sunfish Wastewater System Improvements - Austin Sunnyvale Condominiums Replacement Stairs - Austin Superstructure Analysis Riverview Apartments - New Orleans, LA Superstructure Analysis Shadowlake Apartments - Jefferson Parish TAMU Recreation Sports Building - College Station Texas Department of Banking Structural Investigations - Austin Texas Department of Corrections - Abilene Texas Department of Corrections Alberti Unit - Abllene Texas Department of Corrections - Beaumont Texas Department of Corrections - Beeville Texas Department of Corrections - El Paso Texas Department of Corrections - Gatesville Texas Department of Corrections - Harris Co. Texas Department of Corrections - Hutchins Texas Department of Corrections - Liberty Co. Texas Department of Corrections - Mitchell Co. Texas Department of Corrections - New Boston Texas Department of Corrections - Plainview Texas Department of Corrections - Wichita Falls Texas Department of Corrections - Karnes County Texas Department of Corrections Tower - Amarillo Texas Department of Health Laboratory Stairs/Guardrails - Austin Texas Land & Cattle Co. Restaurant Fire Investigation - Richardson, TX Texas Supreme Court Buildings B & C - Austin Thaxton Road Septic Systems - Travis County 315 W. 35th Apartment Foundation/Plumbing/Superstructure - Austin 2909 Thousand Oaks Truss Evaluation - Austin 27 Tiburon Dr. Groundwater/Drainage/Foundation -- Hills of Lakeway 408 Tilbury Construction Deficiencies - Austin 9816 Timber Ridge Pass Septic Investigation - Austin Timbers Apartments Structural / Drainage/ Plumbing Evaluation - San Marcos, TX Tolt Water Treatment Plant Design Deficiency Evaluation - Seattle 5812 Tom Wooten Drive Floor Trusses/Water Intrusion/ Bracing - Austin Tower Carwash Pavement / Bullding Water Leakage Evaluation - Round Rock Town Lake Villas Drainage/Water Intrusion/Structural - Austin TOWTRC Council Training Center Evaluation/Report - Texas Twenty-First Street CoOp/ Commons Investigation - Austin Twenty-First Street CoOp Structural Lofts - Austin U.S. Naval Station - Ingleside Unity Church Structural Investigation - Austin University of Houston Athletic Facility - Houston University of Texas Life/Health Steel Connections - Brownsville University of Texas Memorial Stadium Additions - Austin University of Texas Residence Dorm Stairs - Austin University of Texas Soccer Stadium - Austin University of Texas Tower/Observation Deck Investigation - Austin University of Texas West Grandstand - Austin USP Atwater Code Issues - Austin 230 Valico Lane - Wall Plumbness / Structural Framing - Austin 230 Vailco - Wall Bracing/Plumbness Issues - Lakeway Valley View Apartments Water Break / Structural / Condemnation - Georgetown

1802 Vance Circle Drainage / Foundation Deficiencies - Austin Victoria Square Roofing Repair Scope - Austin Village at Gracy Farms Roof Assessment - Austin 12600 Wallisville Inspection - Houston 3909 Warehouse Row Structural/Remediation - Austin 1803 Warwick Cove Moisture/HVAC/Structural Investigation - Round Rock, TX Water/ Wastewater No. 19 Walkways and Guards - Travis Co. Waterfront Condo Boat Docks - Austin Waterloo Ice House Additions - Austin Weberg Furniture Store Roof Collapse Investigation - Temple Wells Fargo Bank ATM/Parking Lot Injury - Pasadena, TX Wendy's Restaurant Ladder Investigation - San Antonio 1701 West Avenue Structural Investigation - Austin Westchester Apartments Investigation - San Antonio Western Currency Tower - Ft. Worth Westmoreland Bridge Collapse Investigation - Dallas Wilder Self Storage - Alabama 2606 Wilson St. Apartments - Stair Repairs / Upgrades - Austin Williamson County Annex - Taylor, TX Willow Creek Apartments Roof Investigation - Houston Wimberly Wastewater Holding Tank - Wimberly 2730 Winding Brook Structural/Civil - Austin 6402 Woodhue Foundation/Structural Investigation - Austin Zone Apartments Swimming Pool/ Building Foundations - San Marcos, TX.

#### FOR OTHER FIRMS:

American Founders Office Building - Austin American Oil Company No. 1 Ultracracker - Texas City Austex Food Processing Facility - Austin Austin High School Improvements - Austin Austin's Colony Wastewater Treatment Plant - Travis County B&R Instrument Building - Houston Bain Road Mobile Home Park - Travis County Banister Lane Flood Control - Austin Bastrop County Bridge - Bastrop Baxter Residence - Midland Bayou Bend Townhouses - Midland Beal Lakehouse Facilities - Brownwood Bergstrom AFB Improvements - Austin Bergstrom AFB Squadron Operations - Austin Big Spring High School Remodeling - Big Spring Bluebell Estates Mobile Home Park - Travis County Bluebell Ridge Mobile Home Park - Travis County Bluebonnet Mobile Home Park - Travis County Brackenridge Hospital Expansion - Austin Braker Lane Elementary School - Austin Brown Distributing Company Improvements - Austin Brown Residence - Midland Brown School Improvements - Austin Browning Hangar Improvements - Austin Brushy Creek Bridge - Round Rock 5046 Bull Creek Office Building - Austin Burleson Residence - Midland Bus Transit Facility - Austin

Butcher Mfg. Foam Panel Testing - Lafayette, LA Campbell Center - Dallas Capital of Texas Plaza Storm Structures - Austin Casbeer Miniwarehouse Park - Midland Cat Mountain Subdivision - Austin Cedric's - Midland Celanese Chemical Company Signage - Houston Chandler Building - Austin Charlie's Liquor Store and Warehouse - Austin Charlton Ranch Facilities - Brewster County Charter Hospital - Austin Chevy Chase Center Federal Express - Austin Church of God of Prophecy - Midland Church of The Holy Redeemer - Austin Church of The Rock - Odessa Clark Residence - Menard Clearview Office Building - Midland Clifton Lutheran Sunset Home - Clifton Cody Cattle Company Restaurant - Midland Coffey Residence - Austin Colbert Residence Wastewater - Austin Collins Residence - Midland 804 Congress Office Building - Austin Coors Distributor Facilities - Midland Cornerstone Apartments - Austin Courtyard Apartments - Midland CreditBanc Building Far West Blvd. - Austin Creedmore Meadows Drainage - Austin Crescent Place - Midland Cross-Town Sewer Interceptor - Austin Culver Road Estates Mobile Home Park - Travis County Dairy Queen/ N. Lamar - Austin Davenport Residence - Midland Davis Water Treatment Plant, Phase III - Austin Deepwater Docking Facilities - Kuwait Devine Junior High School - Devine Dobie Junior High School - Austin Dole Residence - Midland Downtown Fire Station - Livingston Driftwood Surveying / ATS Pecan Springs Subdivision Review - Austin Duncanville Apartments - Duncanville East Side Park Improvements - Austin East Texas Pulp & Paper Improvements - Houston Eighth Street Arms Apartments - Austin El Chico Restaurant - Midland Eiroy Road Mobile Home Park - Travis County Emerson Place Masonry Investigation - Midland Enfield Plaza Foundation Improvements - Austin Fann Cantilever Crane #1 - Austin Far West Blvd. Swimming Pool - Austin Fields Residence - Odessa First Presbyterian Church - Coleman

Fisher Scientific Laboratories - Atlanta, GA Ft. Sam Houston Base Facilities - San Antonio

Ft. Sam Houston Commissary Expansion - San Antonio Forum Shopping Center Improvements - Austin

Garden City Hwy. @ FM715 Warehouse - Midland Gary Job Corps Center - San Marcos Gattis School Road Conv. Store Improvements - Round Rock Geigy Chemical Corporation - Louisiana Gethsemane Lutheran Church Improvements - Austin Glenwick Apartment Conversion - University Park GM Steakhouse/Congress Ave. - Austin Goforth VIIIage Wastewater Plant - Austin Gooth Residence - Midland Grandview Warehouse - Odessa Greenville Ave. Condos/Apartments - Richardson Griffith Residence - Midland Grosev Medical Building - Midland 2000 Guadalupe Office Building - Austin 2200 Guadalupe Office Building - Austin Gulf States Utilities Pump Station - Montgomery County Hemphill Park Apartments - Austin Henderson Residence - Midland Henderson Vessel Foundations - Midland Henderson Warehouse - Midland Hickory Farms - Midland Hillander School Expansion - Midland Hilton Hotel Improvements - Midland Hinesiy Restaurant - Merkel Hissom Residence - Midland Holiday Hill Landfill - Midland Housing, Water and Wastewater Improvements - Kuwalt Huggins Pumping Unit Service Warehouse - Midland Hunter Residence - Midland Idlewilde Village - Midland Inverness Condominiums - Bastrop Jefferson Building - Austin Jollyville Rd. Office Building - Austin Jonsson Additions - Midland Kelly AFB Facilities - San Antonio Kennedy Residence - Midland La Amistad Restaurant - Midland La Prada Subdivision - Garland Lackland AFB Exchange Sales - San Antonio Lackland AFB Facilities - San Antonio Lackland AFB Police Operations - San Antonio Lackland AFB Shop Clothing & Equipment - San Antonio Laughlin AFB Air Rescue Opns. Bldg - Del Rio Laughlin AFB Shop Aircraft Bldg - Del Rio Leander Hills Water and Wastewater - Austin Leander Post Office - Austin Lewis Sign Co. Signage - Austin Lewisville Apartments - Lewisville Los Patios Restaurant - Midland McAngus Road Mobile Home Park I & II - Travis County 206 Main Building - Midland Manchaca Mobile Home Park - Manchaca Mathews Elementary School - Austin Metro Building Improvements - Midland

Mewhorter Residence - Midland

Midland High School Improvements - Midland

Midland Savings Association - Midland Missouri Street Restaurant - Midland Monopod Structure - Cook Inlet, AK Mustang Meadows Wastewater - Austin Nakoosa Edwards Paper Plant - Arkansas Nash Building - Austin . : Nieta's Cafe Addition - Midland North Austin Junior Swimming Pool - Austin North Blvd, Addn. Office Building - Midland Northchase II Office Building Improvements - San Antonio O'Donnell Residence - Midland Ogden Office Bulldings - Austin Old Southern Ice House - Midland Oltorf Rd. Office/Warehouse Park - Austin O'Neill Barbeque - Midland Pappagallo Expansion - Midland Parkwood Apartments - Richardson Permian Electronics Radio Tower - Midland Petro-Tex Neoprene Plant - Houston Petroleum Museum Central Power - Midland Pflugerville High School - Pflugerville Piney Creek Bridge - Bastrop Plantation Hills - Midland Plaza Center No. 15 - Midland Plaza Office Building "K" - Midland Plaza Shopping Center Buildings F1 & F3 - Midland Plaza Shopping Center Signage - Midland Pollard Residence - Midland Princeton Business Center - Midland Public Safety Building Improvements - Midland Radio Shack - Midland Ramsey Medical Center - Austin Ramsland Residence - Midland Renner Road Subdivision - Dallas Richardson Apartments - Richardson · Ridgemar Court Investment #1 & #3 Condos - Midland Rodriquez Restaurant - Midland Roper Warehouse - Midland Rowlett Flood Plane Study - Rowlett Rusk Dental Office - Midland St. June Subdivision - McKinney St. Martin's Lutheran Church - Austin St. Nicholas Episcopal Church Improvements - Midland St. Paul Evangelical Lutheran Church - Taylor Sam Houston State Office Building - Austin San Felipe Neighborhood Facility - Del Rio Sandra Street Warehouse Improvements - Austin Scottsdale Addition - Midland Shenandoah Townhouses - Dallas . Sheppard Memorial Hospital Improvements - Burnet 8118 Shoal Creek Dental Center - Austin 7958 Shoal Creek Medical Office Building - Austin Shoal Creek Office Building - Austin

Showcase I - Midland Shull Warehouses - Midland Six Ranch - Midland County Skillern's Drug Store - Midland

Sledge Residence - Midland

Smith Residence - Midland

Smith Building - Midland

Smithville Landfill - Smithville

South Austin Fire Station - Austin

1006 South Big Spring Addn. - Midland

Spicewood Wastewater Treatment Plant - Austin

Stephenson Warehouse - Midland

Sundae Palace - Austin

Sunshine Camp - Austin

Superior Oil Building Improvements - Midland

Sutton Place Condominiums - Midland

Texaco Offshore Drilling Platforms - Houston

Texas Department of Health and Mental Retardation - Austin

Texas Department of Human Resources - San Antonio

Thaxton-Coulver Mobile Home Park Wastewater Utilities - Travis County

Thomason Townhouses - Midland

Timberline Terrace Office Building - Austin

Town & Country Day Care Facilities - Austin

Travis County Blood Bank - Austin

Travis County Courthouse Annex - Austin

Travis County Courthouse Improvements - Austin

Travis County Courthouse Pedestrian Bridge - Austin

Travis County Parking Garage - Austin

Travis Street Low Income Housing - Midland

Treanor Equipment Co. improvements - Midland

Tres Amigos Restaurant - Austin

Trinity Lutheran Home - Austin

Trinity Presbyterian Church Additions - Midland

Trinity School Improvements - Midland

Turner Building Improvements - Midland

Twenty-fourth Street Condos - Austin

Union Hall Baptist Church Addn - Liberty Hill, TX

Union Texas Oil Co. Extraction Plant - Geismar, LA

United States Embassy - Guyana

University Lutheran Center - Austin.

University of Texas Regents' Office Building - Austin

University of Texas Harry Ransom Center - Austin

University of Texas of the Permian Basin - Odessa

University of Texas Swimming Facility - Austin

Vaughn Building Improvements - Midland

2714 W. Wall Warehouse - Midland

Washington/McGarvey St. Warehouses - Midland

Water Line Utility Improvements - Martindale

Water Tower - Martindale

Water Tower Renovation - Midland

Weatherford Landfill - Buda

Western Sizzler Steakhouse - Midland

Westgate Business Center - Midland

Westgate Acres Section 2 Subdivision/Utilities/Development-Midland

Westgate Miniwarehouse Development - Midland

Westlake High School Improvements - Austin

Westminister Manor Additions - Austin

3000 Westminister Residence - Dallas

Westminster Prespyterian Church Improvements - Austin

Wild River Canyon Park - Midland
Wilson Building - Midland
Windmill Hill Apartments - San Antonio
Winston Swimming Pool Facility - Midland
Woodlands Street, Bridge & Drainage Facilities - Woodlands
Yancey Residence - Midland
Y.W.C.A. Improvements - Richardson
Young Vehicle Storage Facility - Midland
Zoller Residence - Midland

AMSTAR ENGINEERING, INC. Structural/Civil Consultants 707 River Road Austin, Texas 78734 (512) 263-3661 Fax (512) 607-6641 Registered Professional Engineers
Texas Oklahoma Arizona
Louisiana Georgia Colorado
Mississippi Utah North Carolina
Kentucky Alabama Arkansas
Texas Firm F-1975

August 28, 2015

Mr. Chuy Ramirez
The J. Ramirez Law Firm
Ebony Park Estates Business Center
Suite B
700 North Veteran's Blvd.
San Juan, TX 78589

Ref: Parr San Juan Alamo Independent School District v. Descon and ERO Project No. 2067

Dear Mr. Ramirez:

In early April, 2015, you contacted this office about a matter involving a school renovation project that had been undertaken by the Parr San Juan Alamo Independent School District ("District") at the Memorial Middle School campus. The renovation had included work at the campus! Main Building. A portion of the Main Building had collapsed as a result of the means and methods of the general contractor -- Texas Descon L.P. ("Descon"). Reportedly no one was injured.

The Main Building had consisted of two floors and a partial basement of vacated administrative and classroom space. On the date of the collapse the structure was almost 100 years old. You advised that during the renovation project and initial demolition of a small "link" structure adjacent to the Main Building, a portion of the Main Building had collapsed.

#### 1.0 Introduction

About February, 2008, the governing board of Pharr San Juan Alamo Independent School District had authorized conducting a preliminary investigation and assessment into the feasibility of upgrading and/or renovating existing structures at the District's Memorial Middle School campus in Pharr, Texas. One of the buildings considered for renovations and/or upgrades was a three-story "main building" constructed in 1915 or 1918 with subsequent remodeling and/or additions in 1976 and 1986. Other buildings considered for renovation

included a building used for textbook storage and a building used as a band hall—both originally constructed sometime in the 1940's.

Ultimately the District chose ERO International, LLP ("ERO") of McAllen, Texas to serve as project architect. An Owner Architect AIA contract was signed on or about December 15, 2008. ERO executed another contract dated approximately May 26, 2010.

The structural engineer chosen for the Main Building complex was Frank Lam & Associates, Inc. ("Lam") of Austin, Texas. The agreement between ERO and Lam was signed on or about September 8, 2009.

Since there was an indication that the Descon might have overcharged the District for reconstruction costs, you and I discussed the damages methodology that could be utilized. You had available in hand the change orders that the contractor had generated around the time of the collapse incident. The contractor had submitted the change directives and change order requests to the architect, ERO. ERO had processed the change order requests through the District. The District in turn had routinely processed the change orders, depending in part on the District's belief that ERO would carefully review them for accuracy and relevancy, and also depending on the representations of two independent engineering firms. In addition, there were numerous "change directives" which were afforded to "allowances" in the contract.

The other engineers, Mr. Frank Lam of Frank Lam & Associates, and Mr. Bruce I. Morris, PE of Rimkus Consulting Group, Inc. ("Rimkus"), had conducted on-site inspections of the collapse damage and had written reports. Both Mr. Lam and Mr. Morris wrote their reports in a manner that led the District to believe that the damage area was a small segment at the west end of the Main Building that had actually collapsed, without going into any detail of other areas damaged as a result of the collapse at other portions of the building structure.

Mr. Morris had written that Rimkus was retained to determine the "limits" of intended (demolition) work that was to be performed by the contractor and to determine the extent of damage to the building outside of those limits as a result of work being performed by the contractor.

A table of damages, based on the change orders, is attached at the end of this report. Also included in the table, unrelated to the collapse, are charges pertaining to water intrusion that the District had to absorb by the failure of ERO and Lam - the structural engineering firm involved in the design aspects of the renovation.

#### 1.1 Purpose and scope

The purpose of my investigation was to attempt to identify the potential cause of the September 22, 2010 collapse and the building structure collapse mechanism, and also

determine the extent of the damage area. Unlike the investigation and report of Lam and Rimkus, my investigation shows that the damaged area encompasses the entire Main Building, as well as portions of the East and West buildings that had been previously attached to the Main Building via enclosed hallways termed "links." Most of the columns in the various structures required re-strengthening after the collapse had occurred.

I understand that portions of the building plans and notes have been furnished in discovery. Refer to Exhibit 1 that shows a composite floor plan and Exhibit 2 that shows a cross section through the main building and adjacent structures.

This report is based in part on my review of relevant sections of the documents which I have reviewed, including the architect contract between the district and ERO and the ERO contract with Frank Lam and Associates, the various assessments and evaluations prepared by them, the plans and specifications for Phase I, change directives and change orders, photographs, the construction contract, and reports and plans. I have also reviewed the post-collapse reports by Frank Lam & Associates; Rimkus Engineers; Raba Kistner Geotechnical Consultants; GCG Garner Consulting Group and Delta Structural Technology.

I have also relied on my formal education and training as a multi-disciplined (including structural) Texas licensed professional engineer, my forty-five-plus years of experience in professional engineering design and inspection services; plus previous experience as a stockholder and/or CEO of construction companies with cost estimating expertise.

In reaching my opinions as to whether ERO and Frank Lam & Associates failed to perform in accordance with the standard of care applicable to structural engineers, I have made certain assumptions regarding the extent of the terms of the engagements between ERO and Frank Lam & Associates. I have also assumed that the documents made available to me do not omit critical facts. I reserve the right to modify my opinions should further documentation clarify a matter.

This letter-report is preliminary in that it represents my observations and opinions to date; and may be changed with or without notice should I receive additional information that merits reconsideration. I have not needed to visit the site to reach my opinions and conclusions. Refer to Appendix "A" for Definitions.

#### 1.2 Documents furnished

- 1. Architectural and engineering plans and notes, including early progress drawing files.
- 2. Specification from the project manual pertaining to "Demolition". See Exhibit 3.
- 3. Change orders and change directives
- 4. Emails among architect and structural engineer
- 5. Reports by ERO; Terracon; Frank Lam & Associates; Rimkus; Raba Kistner Geotechnical Consultants; GCG Garner Consulting Group and Delta Structural Technology

CDs containing photographs and other information supplied by ERO and Frank Lam & Associates, Inc.

## 2.0 Main Building and Connected Structures

The following discussion expands on the text of the discoveries made by Frank Lam in the Lam report dated October 18, 2010 after the building segment had collapsed:

Before the rehabilitation project began, the interconnected school building consisted of the Main Building, the East and West Wings, and the East and West Links that connected the Main Building to the two Wings. See Exhibit 1. Refer to Exhibit 2 for a building section detail.

The Main Building was constructed with a partial basement. See Exhibit 4. The basement has a floor elevation approximately five to six feet below grade, leaving the first floor about five feet above grade. See Exhibit 2.

The columns and exterior walls at the basement consist of reinforced concrete. The interior columns in the basement support the interior portions of the first floor slab and columns loads from above; and the exterior concrete walls support the exterior portion of the first floor slab as well as the load bearing walls carrying the loads from above.

The first and second floors (Exhibits 5 and 6) are constructed of reinforced concrete slab and concrete beams. Interior columns are also reinforced concrete. The first to second floor interior columns support a portion of the second floor concrete slab and loads from above, and the second floor to roof interior columns support a portion of the reinforced concrete roof. A brick parapet projects from the perimeter of the roof.

The exterior walls are brick and load-bearing clay tiles that support the exterior slab portions of both the second floor and the roof. The clay tile walls contain exterior clay tile pilaster columns that also carry exterior slab portions of both the second floor and the roof. These clay tile pilaster columns also abutting the more recently constructed East and West Links. Load bearing structural clay tile walls were vintage construction practice of the early 1900's. See Exhibit 7.

There were two large openings in the load bearing walls and concrete beams would act as headers across the openings. Some openings had been filled with unreinforced concrete masonry units.

The two Wings and the Links have a first floor at ground level and a second floor. They were constructed of reinforced concrete slab and beams at the second floor and the roof. The later addition of the Wings and the Links attached to the Main Building without an expansion joint. The relevance of the lack of an expansion joint is elaborated on below.

The Links were supported by cast in place concrete columns and beams. The columns in the Links abutted the columns in the Main Building. Allegedly, the difference in column type between the clay tile columns inside the Main Building and the concrete columns inside the Links could not be visibly ascertained by a casual visual examination because they had been plastered together at the time the Links were constructed even though it would be obvious that the Main Building had an exit at that location and the Links were constructed much later in time. To clearly ascertain the difference in column type, an engineer would need to conduct testing as part of a detailed examination before preparing the recent plans.

## 3.0 Background

## 3.1 Terracon Inspection and Report

On or about February 22, 2008, a Houston-based firm of consulting engineers - Terracon - published its report of an on-site property condition assessment and inspection of the buildings considered for renovations/upgrades. Terracon's assessment was based upon visual inspection of the property, some construction drawings relating to alteration and remodeling projects, as well as interviews with the District's construction manager, Mr. Ray Sanchez and Mr. Eli Ochoa, P.E., A.I.A., an engineer working for ERO.

Terrracon noted (page 11) that the foundation for the main building was not visible at any location; however, no significant signs of structural distress were noted in the building framing observed. Some minor stair step diagonal cracking in the brick veneer was noted on the upper area of the north elevation near the main entrance and on the east wing of the original structure. Terracon reported that the cracks had been previously repaired and did not appear to be dynamic in nature.

In describing the building structure, Terracon wrote: "The Main Building appeared to consist of a reinforced concrete frame with masonry and structural clay tile exterior walls. Exterior stairwells were added during previous remodeling. Original open spaces on either side of the original connecting corridor from the Main Building to the Auditorium were enclosed utilizing steel framing that supports metal roof decking and stucco-finished exterior walls. ...The Main Building roof appears to be applied to a reinforced concrete deck..."

Terrracon noted (page 11): "The building framing elements were generally partially obscured in all buildings. The reinforced concrete structure of the Main Building generally appeared to be in good condition with isolated areas of damage, primarily due to water infiltration.

## 3.2 ERO Inspection and Report

About March 3, 2008, ERO completed its own inspection of the existing structures at Memorial Middle School. ERO's report of its inspection noted various problems with the existing structures and the site, including large amounts of standing water and needed repairs or upgrades to the roofing system and exterior walls.

The report ultimately recommended that the District should replace the campus rather than proceed with renovations and upgrades, and cautioned that major transformations, such as an evisceration of interior components for structural repairs to the foundation, sub-flooring and walls would be necessary if the District proceeded with renovations.

ERO noted (page 1): "Moisture problems are present both inside the buildings and with surface drainage on site. Six inches of standing water (possibly inside the basement) as seen on a site visit, if not corrected soon with cause further structural damage to the facilities. Water leakage from roofs, old windows and doors, as well as HVAC equipment also add to the ongoing decay of the facilities."

ERO (page 2) noted: "Costs to remediate the structural components of the buildings are extensive. Uneven settlement of the foundation has occurred, requiring underpinning." With a special note concerning demolition, ERO continued: "Often times in selective-demolition to structure for repairs, unknown circumstances become apparent that lead to additional demolition than what was planned."

ERO (page 2) noted: "if existing buildings are to be renovated for middle school use, the buildings would need major transformations. The main building would likely require evisceration of interior components so structural repairs could be made to the foundation, subflooring and walls."

On March 28, 2008, Eli Ochoa, professional engineer with ERO, noted in a letter: "There are no significant signs of structural distress on any of the buildings' foundations. There are some noted perimeter wall cracks on the Main Building and the old band hall wing of the Stambaugh Building. The cracks are most likely caused by minor differential settlement of the foundations and can be readily repaired by underpinning the perimeter foundation beams with cast-in place concrete drilled piers.... While the buildings are in generally good condition, isolated areas of damage due to water infiltration are evident throughout the buildings."

Ultimately, on the basis of reported subsequent representations from ERO that it would be safe, feasible and economically practicable to proceed, reportedly the governing board of the District authorized the renovation/upgrade project to be completed in two phases. Phase I would be the upgrade/renovation and adaptive reuse of the three story main building ("Main

Building") and Phase II would be the upgrade/renovation and adaptive reuse of the band hall (Stambaugh Building) and a building used for textbook storage ("textbook storage building").

## 4.0 Frank Lam & Associates Contract and Reports

## 4.1 Terracon budgeted a \$40,000 fee for a structural inspection and report

The February 22, 2008 Terracon report concluded that the buildings (In general) were in "fair to poor condition" and recommended (page 2) that a structural engineer be budgeted \$40,000.00 to conduct an on-site review and report in order to determine the structural condition and capacities of certain buildings and prepare recommendations for renovation.

In its report, Terracon had provided estimated repair cost tables. Terracon included an estimated cost of "Structural Engineer, On-site review & report" of \$40,000.00. Defined duties of the structural engineer were "To determine structural condition and capacities of certain buildings and prepare recommendations for renovation." Terracon did not include an estimated additional cost of the engineer to prepare the structural plans and similar construction documents.

## 4.2 ERO budgeted a \$27,200 fee for a structural inspection and report.

ERO, in its March 3, 2008 report with similar tables as Terracon, reduced Terracon's estimated cost of structural "on-site review & report" from \$40,000.00 to \$27,200.00 (ERO page 1 of 4) while referring to the Terracon report as the source document. Terracon shows no such cost figure.

# 4.3 ERO offered a \$10,940 fee to Frank Lam & Associates for a structural inspection and report.

On September 8, 2009, Jesus V. Delgado of ERO sent a "Letter Agreement for Structural Engineering on the PSJA ISD Early College High School project" to Frank Lam of Frank Lam & Associates, Inc. ("Lam") referencing "your proposals" in which Lam had agreed to conducting a "Structural Evaluation and Report of Existing Facility for \$10,940.00" which is a much lower fee than the \$40,000.00 estimated by Terracon and less than half the \$27,000.00 fee estimated by ERO. Such a substandard fee would not enable Lam to undertake a thorough professional investigation, including testing, and determination of the structural condition of the Main Building.

The ERO letter also contained onerous terms. Lam had also agreed to prepare "Structural Engineering and Construction Documents for Renovation & Additions to the Main Building - Phase I for \$26,360.00 " Mr. Delgado wrote: "The total combined fixed fee is \$37,300.00. This

combined amount will be the agreed upon total upon which to invoice. Invoicing shall be on a percentage of total work completed. Following is how I interpret the fee payment arrangement:

- Schematic Design \$20%. Lam would not be paid for the structural evaluation and report until after ERO had conducted it's schematic design on which the structural evaluation and report depended. After the architect had completed its schematic design, ERO would be paid 0.20 x \$37,300.00 = \$7460.00.
- 2. Design Development 20%. Lam would not be paid the balance owed to him on the Structural Evaluation and Report of Existing Facility of \$10,940.00 \$7460.00 = \$3480.00 until the architect had completed its next stage Design Development and was ready to start on the plans and specification.

In my opinion, Lam had limited itself to few choices under this contractual arrangement:

- 1. His choice was to conduct a proper structural evaluation and report that would include limited testing of structural building elements; attempting to discover the source of the water problem in the basement of the main building; and reach conclusions that would indicate that the exterior walls at the main building are load bearing walls and the columns are combination clay tile and concrete not a complete concrete frame as Lam evidently ultimately assumed. Lam could then recommend in his report that special precautions be taken during demolition. Such a proper investigation and report by Lam would be more costly to Lam, and if Lam went to ERO for more money, ERO would need to go to the District for more money. The District would learn that the overall budget would need to be increased by imposing additional safety procedures related to regular monitoring of the demolition process by the Contractor.
- 2. An alternative to Lam Risk the cost of driving to the site, taking some photographs, and writing a brief report that everything was structurally sound thereby assuring Lam of eventual payment.
- 3. Another alternative is that Lam was simply careless in conducting its inspection and preparing its report and therefore, professionally negligent.

In my opinion, ERO had already formed its own opinion that the building was sound enough to generate substantial architectural fees. Nevertheless, instead of walking away, Lam accepted the conditions, most likely because Lam would eventually receive a \$37,300.00 total fee.

Had Mr. Lam made the proper professional investigation including testing, he would have determined in advance the nature of the structural elements of the buildings and included in the plans a practical, safe way of notifying the contractor of the need for proper shoring and bracing and on-site observations that would need to made with regard to demolishing the Link portion

of the buildings in order to protect the Main Building from the contractor's potential means and methods for conducting the demolition process.

It is my professional opinion that Mr. Frank Lam, P.E. and Frank Lam & Associates, Inc. is responsible for at least the following act, error, or omission that exists on the Project — falling to undertake a more thorough investigation and determination of the structural integrity of an existing building for future modification and existing conditions of the facilities.

## 4.4 Lam Report dated September 30, 2009

Mr. Frank Lam, PE compiled a report dated September 30, 2009 stating that Frank Lam & Associates; Inc. "was contracted with ERO Architects to provide a structural engineering report for the Early College High School Project in PSJA ISD. The engineering report includes evaluation of the existing structure and discussion of the issues related to renovations of the existing buildings, and provides recommendations for the structural system of the proposed building additions."

Under "Scope of Work" the report states: "The scope of work includes a site visit to observe the structural members and any major structural distresses in order for us to evaluate the structural condition of the existing buildings. The site visit was performed on August 27, 2009. Renovation items which affect the structure include proposed openings in the basement concrete wall, demolition of the structures in between the main building and the east and west wings, demolition of the exterior raised walkway at the auditorium annex, demolition of the central entry stairs at the north side of the main building, cutting the existing floor slab for pipe penetrations and new mechanical chase openings, proposed openings in the exterior masonry walls at the main building .... Proposed building additions include the mechanical room and the elevator shaft at the basement, the first and second floor structure between the main building and the east and west wings...."

Under "Review of Existing Structural Documents" the report states that there were no drawings to work from and that "The condition of the structure, the framing system, and the structural evaluation of the existing buildings are based on site observations of the exposed structural member and our past experience on similar buildings." In other words, Lam did not do any exploratory testing, such as having an assistant present to chip or drill into suspected concrete or tile column locations to determine what materials had been used or to determine if the exterior walls were load bearing clay tile, vintage for the era the building was built, or full concrete structural frame with concrete floors and concrete columns.

The Lam report stated: "Based on our site observation, the buildings were constructed of concrete slab, beams and columns as primary structural members. The exterior of the buildings were constructed with masonry and stone."

Nowhere in the report did Lam state that the exterior walls and pilaster columns were load bearing clay tile, because he had not conducted any tests.

The Lam report concluded "In general, we believe that the existing structures are in good condition for the ninety year old buildings and the proposed building additions should not affect the structural integrity of the buildings."

# 5.0 Discussion of the Collapse

Phase I of the Project entailed demolition of certain outer columns and support structures in order to construct improvements to the Main Building. Specifically, these improvements would be structures that linked newer building wings to the Main Building. During the course of the demolition of the outer support structures, portions of the main school building not designated for demolition, including large parts of the east wall and second story floor, collapsed. As a result of the east wall collapse, portions of the west wall and support columns in the basement suffered structural damage necessitating significant repairs.

The September 30, 2009 report prepared by Mr. Lam was based on cursory observations. The engineering report was to have included an "evaluation of the existing structure and discussion of the issues related to renovations of the existing buildings, and provide recommendations for the structural system of the proposed building additions." However, the report stated "The condition of the structure, the framing system, and the structural evaluation of the existing buildings are based on site observations of the exposed structural members and our past experience on similar buildings." Lam evidently did not do any exploratory testing, such as having an assistant present to chip or drill into suspected concrete or tile column locations to determine what materials had been used or to determine if the exterior walls were load bearing clay tile, vintage for the era the building was built, or full concrete structural frame with concrete floors and concrete columns as he ultimately evidently assumed.

The Lam report stated: "Based on our site observation, the buildings were constructed of concrete slab, beams and columns as primary structural members. The exterior of the buildings were constructed with masonry and stone....In general, we believe that the existing structures are in good condition for the ninety year old buildings and the proposed building additions should not affect the structural integrity of the buildings."

On or about September 22, 2010 a structural collapse occurred at the east end of the Main Building at the Project site. The contractor had been demolishing a narrow "link" building attached to the Main Building and adjacent to another building located further east. On October 18, 2010 another Lam-generated report stated: "The concrete slab and beams at the second floor and the roof are partially supported by masonry columns at the building corners and at the entrance corridor and partially supported by exterior load bearing masonry wall which is constructed of brick veneer and clay tiles." From his observations made after the